

SEPTEMBER 1961 • 40 CENTS

# Consumer BULLETIN

The original consumer testing magazine

## LATEX PAINTS

Slide projectors

8 mm sound camera and projector

## MEN'S SHIRTS

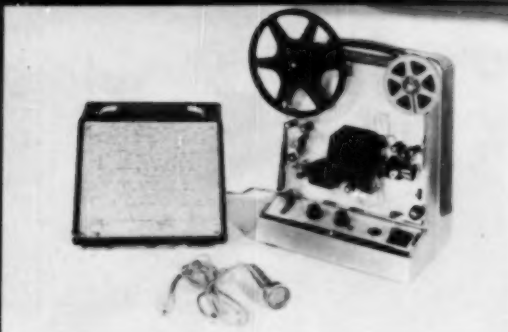
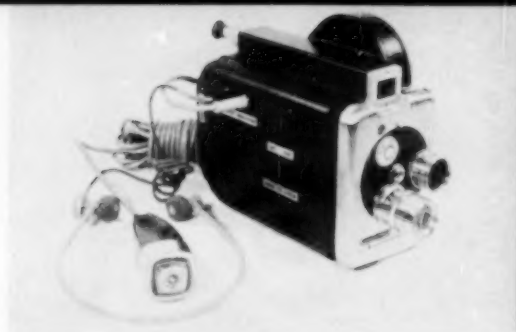
**WATCHES**—new gyms  
in the trade

Chemicals in your food—  
important new book reviewed

## WATER HEATERS

Instant tire repair?





## Fairchild 8 mm. sound movie equipment

AMATEURS' interest in home movies, especially the 8 mm. variety, has expanded tremendously during the past few years. Such advanced features as zoom lenses and automatic electric-eye operation have made it easier for the average home movie fan to obtain satisfactory pictures. Another new development in the 8 mm. field has been the addition of a sound track on 8 mm. film so that music and commentary can be added to otherwise silent films.

The Fairchild Camera & Instrument Corp. has now entered the field of home movies, with a camera which makes a synchronized sound track on the film as the pictures are being taken, and an 8 mm. sound projector. Prior to the advent of this camera, called the *Fairchild Cinephonic Eight*, the sound track had to be added to the film after exposure and processing, making it difficult if not impossible to have synchronized sound, or the moviemaker who wanted on-the-spot sound with his scenes had to use the far more expensive and complicated 16 mm. or 35 mm. movie equipment.

The sound track on the *Fairchild* film is in the form of a thin magnetic strip along the sprocket edge of the film. Sound is magnetically recorded (in the same way as with an ordinary tape recorder) through a transistor amplifier built into the camera. Both the camera and recording amplifier are powered by a built-in rechargeable nickel-cadmium battery. This battery is said to be good for exposing 800 feet of film per charge. A set of earphones is provided for monitoring the sound while the film is being shot.

Only one make of sound film can be used for the *Cinephonic* camera; this is a color film called *Fairchild Cinephonic Sound Film* which is made for Fairchild by Ansco. The film comes in 50-foot rolls of double-8 mm. (equiva-

lent to 100 feet of processed film) with the magnetic sound strip already applied. The price of the film is \$10.95 per roll, including processing. It is balanced for tungsten light and with such light has an ASA index of 12. For daylight use with an 85B filter (supplied with the camera), the index is 10.

The camera is heavier than most 8 mm. cameras, its weight being 5½ pounds, but compared to 16 mm. sound cameras, it is quite compact in size. A turret for 3 lenses is supplied, although only one lens, a 13 mm. f/1.8 fixed-focus lens comes with the camera as standard equipment. The only controls are the shutter release, which also turns on the amplifier, and a volume control for adjustment of recording level.

The *Cinephonic* projector is an 8 mm. projector of conventional appearance utilizing the popular *True-Flector* 150-watt lamp (with a claimed light output equivalent to that of a 750-watt bulb), and the projector has a built-in vacuum-tube-type amplifier. A 6-inch speaker is supplied, mounted in a separate case. The projector may be run at 16 frames per second for conventional silent films or at 24 frames per second for sound films. The sound section has a record-erase head, with which the sound track may be edited, erased, or added to.

Editing of sound-track films may present a problem, since the sound track is 52 frames ahead of the corresponding picture frame. One must anticipate editing breaks, and record no sound for 2 or 3 seconds at those spots, when filming.

The movies taken with the *Fairchild* camera and shown with the *Fairchild* projector were steady, and the sound was fairly good. The f/1.8 *Cinphar* lens on the camera tested did

(Concluded on page 26)

## *The Consumers' Observation Post*

IF YOU'RE BUYING AN APPLIANCE AT A DISCOUNT HOUSE, wear your week-end mowing-the-lawn clothes. One well-dressed businessman who tried to get a quotation on an automatic washer in one store of this type was given the brush-off by the salesman. As Electrical Merchandising Week describes the incident, he went home, changed to a windbreaker, work pants, and worn shoes, and mussed up his hair. When he returned to the store, the picture of unsophistication, the salesman rushed to wait on him. After some study of the situation, he concluded that a "grease monkey" with a dinner pail would get more attention than an engineer with an attaché case, but the latter would get more attention than a "grease monkey" with a pad and pencil; a young woman pushing a baby carriage would be considered a better customer than a well-dressed matron with a poodle on the leash, and a starry-eyed pair of newlyweds would be waited on in preference to a gimlet-eyed male obviously comparing portable TV sets. For heaven's sake, don't carry a copy of Consumer Bulletin where it can be seen. Very likely you'd never get waited on.

\* \* \*

SPIKE HEELS have the same general effect on a floor as a herd of elephants. That's what a Honolulu bank discovered when its officials sought to find out what was causing the pitting in the one-inch-thick marble tiles in front of the tellers' windows. An expert analysis brought the answer that it was due to the impact of spike heels. According to mathematicians' calculations, a 110-pound woman wearing spike heels exerted the same pressure on the floor as the foot of an elephant, 1200 pounds per square inch.

\* \* \*

ARE THE DENTAL X-RAY MACHINES in your city inspected regularly? More than half of those checked by city health inspectors during the past two years in New York City were found to be defective from the safety standpoint, according to Dental Times. Furthermore, 92 percent of physicians' diagnostic X-ray and fluoroscope machines were found defective. The most common fault in the dental X-ray devices was inadequate filtration (37 percent). Other defects were "beams exceeding the area of clinical interest" and inadequate protection for the operator. Fortunately most of the dentists were using fast film, which cuts down the exposure time to one-fourth to one-half of a second compared to the previous two to three seconds. Structural shielding should be checked also to make certain the rays do not penetrate the walls of an adjoining home or apartment.

\* \* \*

THOSE HEAT-AND-SERVE TV DINNERS take a larger slice out of the family food budget than meals prepared from scratch. The New Mexico Extension News reports that three ready-to-serve meals cost \$6.70 compared to \$4.50 if they were prepared at home. The home-prepared meals, however, would require four more hours of the homemaker's time.

\* \* \*

PLEASE DON'T CALL IT JUNK MAIL. This summer we have been doing a lot of mailing to people we hope will be interested in subscribing to Consumer Bulletin. Nearly a hundred lists have been used and, since we try to pick lists that include what we think are our kind of people, it would not be surprising if a good many of you received at least one mailing intended for new subscribers. If that happens, we hope that you won't mistake it for a renewal notice or be annoyed and throw it in the wastebasket. We can't afford to check all these lists against our active subscription records. Won't you help us increase our scope of service by passing the material along to some friend, especially the one who borrows your copy of Consumer Bulletin, and suggest that he take out a subscription himself? We'll appreciate your cooperation in our behalf.

PORK SOLD IN BUTCHER SHOPS in the United States is not inspected for trichinosis, even though it carries the stamp "U. S. inspected and passed." This situation was brought to the attention of readers of the Journal of the American Medical Association by John H. Walters, M.D., and George C. Shelton, D.V.M., of the University of Missouri, who pointed out that the lack of trichinosis inspection by the U. S. Department of Agriculture has led to an incidence in the United States of more than three times as much trichinosis as is known in all the rest of the world put together. Instead of providing the needed inspection, U. S. authorities apparently hope that the housewife will cook all pork products thoroughly before they are eaten, so as to kill the trichinae that may be present. The symptoms of acute trichinosis are reported to resemble closely illnesses often attributed to infections with one or more types of virus.

\* \* \*

IF YOU CAN'T GET PERMISSION TO BUILD the kind of house you want in your locality, the chances are the building code needs revision. In theory, building codes are set up by the local governments to protect the health and safety of the community. They are supposed to provide minimum standards for builders to prevent the use of unsafe or inferior materials. Most codes are in the form of specifications that spell out the materials and methods that are permitted or may legally be used. Codes vary widely from city to city, and many are so old that they do not take into account modern low-cost materials and techniques. Trade unions and associations of business firms often object to changing such codes because of the economic advantage they stand to gain by maintaining the status quo. City fathers who are wrestling with code problems can obtain help from several organizations, including the National Board of Fire Underwriters, which has offices in New York City, Chicago, and San Francisco, and makes available without charge to municipal officials a copy of its National Building Code.

\* \* \*

SILK PRINT DRESSES are the subject of complaints from consumers and a source of headaches for dry cleaners. The National Institute of Drycleaning reports that many pure silk print dresses show poor colorfastness to moisture. Coin dots bleed due to the dampness of night air; black designs bleed into lighter colors from perspiration; dresses exposed to rain bleed excessively. Nothing can be done by any method to restore such garments to their original appearance. It is almost impossible to tell before making a purchase whether a dress will bleed, unless an opportunity is afforded to rub a small section either at a seam or in some unobtrusive spot with a dampened handkerchief.

\* \* \*

THE ALLSTATE MOTOR CLUB (Sears, Roebuck & Co.) has moved into a field that has been pretty well covered heretofore by the American Automobile Association. The club's annual fee of \$12.50, which covers husband and wife, not just one person, is somewhat less than the AAA's which runs from \$15 to \$35 for the first year for comparable services. The new motor club offers vacation planning as well as trip routes, which will be handled out of the home office at Skokie, Ill. Various services include: a personal accident insurance policy, payment for towing and emergency service, check cashing service, payment for legal defense, a quarterly magazine, and a vacation guide. Whether the services compare in usefulness and quality with the well-established AAA remains to be seen. It should be noted also that good touring information and marked maps can be secured without charge from Esso Touring Service, 15 W. 51 St., New York 19, N.Y.

(The continuation of this section is on page 37)



# Consumer Bulletin

THE ORIGINAL CONSUMER INFORMATION MAGAZINE

Consumers' Research is a non-profit institution. It is organized and operates as a scientific, technical, and educational service for consumers. The organization has no support from business or industry. Its funds come solely from the ultimate consumers who read Consumer Bulletin.

Scientific and technical staff, editors, and associates: F. J. Schlink, R. Joyce, D. C. Allen, M. C. Phillips, Erma A. Hinek, F. X. Hinek, Donald M. Berk, and A. R. Greenleaf. Editorial Assistants: Mary F. Roberts, B. Beam, and Ellen J. Snyder.

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For a change of address, give your old address as well as your new one, including postal zone number. Allow five weeks for the change to become effective.

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Listings usually are arranged in alphabetical order by brand name (not in order of merit) under each quality or performance rating. A numeral 1, 2, or 3 at the end of a listing indicates relative price, 1 being low, 3 high. Where the 1, 2, 3 price ratings are given, brands in the 1, or least expensive, group are listed alphabetically, followed by brands in price group 2, also in alphabetical order, etc. A quality judgment is wholly independent of price.

This publication is authorized to be mailed at the special rates of postage prescribed by Sec. 132.122, Postal Manual.

Entered as second-class matter, November 9, 1934, at the Post Office at Washington, N. J., under the Act of March 3, 1879; additional entry at Easton, Pa. Printed in U.S.A.

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## Men's white wash-and-wear shirts

SOME YEARS AGO, the trade magazine, *Men's Wear*, showed on its cover the room of a male traveler, obviously in Paris. Strung on a line across the door to a balcony were his clothes, "dripping dry."

Wash-and-wear clothing of all kinds has long since graduated from this limited use to day-by-day wearing by the consumer who as a rule travels no farther than from his home to office and back again. Shirts of the wash-and-wear kinds, for example, now outsell other shirts by better than two to one.

### Plus values

One reason for their popularity is, without doubt, an economic one. Although the cheapest shirt one can buy is *not* a wash-and-wear one, the wash-and-wear may be the cheapest shirt in the long run. A government economist has calculated that if the housewife counts the time she spends in laundering at \$1 an hour a \$4 wash-and-wear shirt will represent a total investment of \$6 over its lifetime (\$4 for the shirt; \$2 for laundering time). Consumers' Research inclines to the view that \$10 is a more realistic figure (\$4 for the shirt, \$6 for laundering, including some pressing). A conventional shirt at \$4, on the other hand, will cost \$20 before it is thrown away (\$4 for the shirt; \$16 for laundering, including starching, at home), according to the economist. The same \$4 conventional shirt, laundered by a commercial laundry at 25 cents per laundering, will cost \$14 by the time it is retired (\$4 for the shirt, \$10 for 40 launderings), CR calculates. Thus the economic advantage of the wash-and-wear shirt is clear—and substantial.

The wash-and-wear shirts have other advantages, too. Although they may require special care in laundering if the "no-iron" feature is to be realized in use, these shirts are easier to iron than conventional shirts. Ironing a conventional shirt is said to require 15 minutes per shirt on the average. Some of the



better wash-and-wear shirts will need no pressing or at most only touch-up pressing requiring just a few minutes. Workers at Consumers' Research took about 10 minutes to steam-iron a wash-and-wear shirt completely, about two thirds the time required for ironing a conventional shirt.

Wash-and-wear shirts are more likely to retain a good appearance during wearing than conventional shirts. Thus, some men prefer them, even if they send their shirts to the laundry.

### Minus values (?)

Wash-and-wear shirts differ from conventional shirts in a number of respects. Manufacturers have made changes in the stitching, construction, and trim of wash-and-wear shirts to improve their ability to look well with a minimum of laundering care. Many of these shirts are made with a single seam only, on the sleeves and the sides (see illustrations). Missing from these shirts, too, is the front pleat which was top-stitched on each side of the buttonholes. (Sleeves also are likely one-piece, rather than two, but this is an advantage in any shirt.) Thus there are fewer outside seams to pucker in laundering and spoil the appearance of the shirt.

Furthermore, the stitching is relatively coarse, 14 or 15 stitches to the inch, rather than 18 or over, even on the collar. (Shirts commonly have lower-count stitching for the sleeves, armholes, and side seams.) There is no doubt, however, that seams that do not pucker are to be preferred to seams that are stitched closely and do pucker. Even the buttonholes of good-quality wash-and-wear shirts may be less closely stitched.

Finally, the fabrics of wash-and-wear shirts differ from the fabrics of conventional shirts.

### **Fabrics for wash-and-wear shirts**

The fabrics used in making shirts that are "wash and wear" are of four kinds: (1) resin-treated cotton woven fabrics; (2) processed cotton woven fabrics; (3) blended fabrics in which cotton has been woven with a synthetic polyester fiber, either *Dacron* or *Kodel*; and (4) knitted fabrics of synthetic fibers or blends of synthetic fibers.

**Resin-treated fabrics** are heavier than untreated fabrics, and in most cases rougher or crisper (or stiffer and less "gentle to the skin," depending on your point of view). Thus it is not unreasonable that the fabrics used are usually of a lower thread count than untreated cotton shirt fabrics. Of the 15 broadcloth shirts included in CR's recent test, 13 had fabrics with a 144 x 64 count approximately. This is a good fabric, but a typical count for first-quality broadcloth (not resin treated) used in shirts is 144 x 76.

Some resin finishes have disadvantages. They may retain soil or detergent, so that it won't wash out completely, and some give off unpleasant odors. Others turn yellow if washed in water in which a chlorine bleach has been added. These problems were not characteristic of the resin-treated fabrics of the shirts tested by Consumers' Research, although some of the resins did wash out during the 20 wearings-and-washings test.

**Processed cotton fabrics**, finished by the Belfast process, developed by the Deering, Milliken & Co., have been specially treated to decrease wrinkling in both a wet and a dry condition. These fabrics are more pleasant to the touch than the usual resin-treated fabrics, on the whole, and in their physical characteristics tend to resemble more closely the blended fabrics. Belfast fabrics have been on the market only since early 1960. They are, however, beginning to be seen more and more frequently in men's shirts.

Many of the cotton fabrics carry the Sanforized trademark, which connotes minimum shrinkage of the fabric. "Sanforized Plus" is a relatively new label which applies only to wash-and-wear garments. It represents a program of Cluett, Peabody & Co. which includes application of standards for smooth-

### **What is "wash and wear"?**

According to the American Home Laundry Manufacturers Association:

"Automatic wash-and-wear means that the garments have been constructed to be machine-washed automatically and tumbled-dried in an automatic clothes dryer for wearing with little or no ironing."

"Drip-dry wash-and-wear clothes are manufactured to be hand washed and hung on a hanger to dry. These garments generally require some touch-up ironing. However, recent tests have shown that most of these garments can be dried in an automatic clothes dryer successfully."

ness after washing, shrinkage, wrinkle resistance, tensile strength, and tear strength.

**Woven blended fabrics** used in men's shirts are usually cotton combined with a polyester fiber, either *Dacron* or *Kodel*. *Kodel* has one advantage over *Dacron*; it can be ironed at a high temperature (400°F), like cotton. *Dacron*, like other polyesters, should be ironed at a fairly low temperature (around 300°F). These blended fabrics are more sheer, and lighter in weight than broadcloth. For some men, the sheerness is a disadvantage (they also dislike sheer all-cotton shirts). Others object to the tendency of the blended fabrics of cotton and synthetic fibers to cling to the body.

Shirts made of **knitted fabrics** were not included by Consumers' Research in its present study. One of the knitted shirts that is popular with travelers is the *Dectolene* shirt by Arrow, made of 91 percent *Dacron* polyester fiber with 9 percent nylon in a small check pattern. Though knitted fabrics do not have the same crisp appearance as woven shirt fabrics, the over-all appearance is usually satisfactory.

Knitted-fabric shirts are expensive; they sell at \$9 and up. The all-cotton shirts tested were in the \$2.75 to \$5 price range; blended fabric shirts, \$4 to \$9.

### **Tests by Consumers' Research**

The 23 wash-and-wear shirts tested by Consumers' Research were made of woven all-cotton fabrics or blended fabrics. The shirts were worn, machine washed by home laundering methods without bleach in hot water, dried in a washer-dryer combination until

damp dry, then hung on wood hangers to dry completely. The wash-and-wear cycle was repeated 20 times; then all shirts were washed and bleached with chlorine bleach, to check for yellowing (there was none noticeable). Care was taken to wash and dry only a four-pound load, since it is well known that not overloading a washer-and-dryer helps prevent excessive wrinkling of clothes.

Shirts were pressed with a steam iron as required after each laundering. The collars and cuffs of most of the shirts, whether of all-cotton or blended fabric, required little or no pressing; the fabric in the body of the shirts, however, often required pressing. The decision to press or not to press was based on the opinion of the laboratory worker or the man wearing the shirt (and the men, all office and laboratory workers, sometimes disagreed with the decision *not* to press).

Evaluations of the wash-and-wear characteristics were made on the basis of the appearance of the fabric and of the stitching of the garment. The shirts made of blended fabrics, as a group, were judged by those who conducted the tests to have retained their good appearance better after laundering than the cotton shirts, as a group. The blended fabrics tended to be relatively smooth, but they were not as white a white as the all-cotton fabrics. The stitching of the blended-fabric shirts tested, too, was relatively smooth.

Some of the cotton fabrics tended to have a lightly dimpled or rippled appearance that the more particular men considered too far below the standard of an ironed cotton broadcloth

shirt. It should be noted, however, that some of the all-cotton shirts ranked high in appearance of the fabric and the stitching after laundering. The ratings on appearance of the stitching after laundering were closely related to the amount of exterior stitching, although puckering from interior stitching was found in some cases.

### Construction and workmanship

The shirts were examined for construction details and workmanship. There were differences in the special features of the garments, but these were not considered important. All of the shirts tested had soft collars with built-in permanent stays, with the exception of one. This was the *Van Heusen Century Vantage*, which had a special double-woven collar. The collar of the *Century Vantage* shirt tested was creased when the shirt was received from the dealer, and these creases were never eliminated from the collar despite its being worn and laundered 20 times. The collar was stiffer than the collars of the other shirts, and the wearer considered this stiffness a disadvantage.

All the shirts had one-piece sleeves (considered desirable) except the *Marlboro Thrust*, which had two-piece sleeves. The cuffs of the sleeves of all shirts tested but two were of the convertible type, that is, they could be worn either buttoned or with cuff links. Four shirts, *BVD*, *Hardwick*, *Van Heusen*, and *Wings Orbit* had plain unstitched folded edges on sleeve cuffs. The *Hathaway* and *Pilgrim 369* shirts had buttoned cuffs.



The single seam on a shirt, as shown on the left, is less likely to pucker than the double seam shown on the shirt at the right. Single seaming is one of the changes brought about as a result of the emphasis on "minimum care" and little or no ironing.



### Shrinkage and conformance to marked size

The shirts were measured as received and after 5, 15, and 20 wearings and washings. Fabrics of the men's shirts tested were well stabilized, and shrank very little, less than 2 percent in each direction. Most makers had made sure that collar sizes met or even exceeded the marked size. Sleeve lengths, too, were usually as marked, though sometimes a bit longer or shorter. Most shirttails were relatively short (an annoyance to tall men); notable exceptions were the Sears' *Pilgrim* 369 and the *Hathaway* which had shirttails of good length.

#### A. Recommended

The eight shirts in the first group were judged good in all respects: fabric, stitching, workmanship, and construction, and were in conformance to marked size after being worn and washed 20 times (half their estimated wear life). In addition, each had a good appearance at the completion of the test without being pressed.

**B.V.D.** (Fordham-Bardel Shirt Corp., 212 Fifth Ave., New York 19) \$4. All-cotton broadcloth. 2

**Golden Brent** (Montgomery Ward's Cat. No. 35—868) \$3.67, plus postage. All-cotton broadcloth, *Sanforized Plus*. 2

**Pilgrim** (Sears-Roebuck's Cat. No. 33—280) \$3.90, plus postage. All-cotton broadcloth with a "shadow stripe," *Belfast* processed. 2

**Golden Arrow (5.D.C.)** (Cluett, Peabody & Co., Inc., Troy, N. Y.) \$5.95. All-cotton broadcloth, *Belfast* processed, *Sanforized Plus*. 3

**Golden Brent** (Montgomery Ward's Cat. No. 35—818) \$5.97, plus postage. 65% *Dacron* polyester, 35% cotton fabric. 3

**Manhattan Delcot** (The Manhattan Shirt Co.) \$5.95. 50% *Kodel* polyester, 50% cotton blended fabric. 3

**Manhattan Docoma** (The Manhattan Shirt Co., 1271 Avenue of the Americas, New York 20) \$6.95. 65% *Dacron* polyester, 35% cotton fabric. 3

**Pilgrim** (Sears-Roebuck's Cat. No. 33—369) \$6.86, plus postage. 65% *Dacron* polyester, 35% cotton batiste blended fabric. Had long shirt-tail. 3

\* \* \*

**Hardwick** (Sold by Allied department stores) \$3.39. All-cotton broadcloth. 1

**Penney's Towncraft** (J. C. Penney Co. stores) \$3.25. All-cotton broadcloth. 1

**Arrow Whip** (Cluett, Peabody & Co., Inc.) \$4.50. All-cotton broadcloth. 2

**Golden Brent** (Montgomery Ward's Cat. No. 35—816) \$4.97, plus postage. 50% *Kodel* polyester, 50% cotton, blended fabric. 2

**Longwear** (New Process Co.) \$3.69. 65% *Dacron* polyester, 35% cotton fabric. 2

**Hathaway** (C. F. Hathaway Co., 112 E. 40 St., N.Y.C.) \$8.95. 65% *Dacron* polyester, 35% cotton fabric. Had long shirttail, but one sleeve was 1 in. short of marked size. 3

#### B. Intermediate

**Longwear** (New Process Co., Warren, Pa.) \$2.97. All-cotton broadcloth. Collar was puckered. 1

**Pelham Wash-'n-Wear** (Sold by G. C. Murphy Co. stores) \$2.95. All-cotton broadcloth. A fair shirt all around. 1

**Manhattan Mansmooth** (The Manhattan Shirt Co.) \$5. All-cotton broadcloth. Fabric of sample tested was coarse and had defects. Collar was not smooth. 2

**Van Heusen Vantage** (Phillips-Van Heusen Corp., 417 Fifth Ave., New York 16) \$4.50. All-cotton broadcloth. Collar was difficult to iron because of uneven shrinkage. 2

#### C. Not Recommended

**Wings Orbit** (Wings Shirt Co., Inc., 4 W. 33 St., N.Y.C.) \$3.35. All-cotton broadcloth of relatively low count. Fabric and stitching fairly coarse. Over-all workmanship, fair. 1

**Truval** (Truval Shirt Co., Inc., 350 Fifth Ave., N.Y.C.) \$3.35. All-cotton broadcloth of relatively low count. Fabric and stitching fairly coarse. The armhole seams of this shirt became considerably puckered in laundering, and were difficult to straighten out in pressing. 1

**Aldens** (Aldens Inc., Chicago 7; Cat. No. 61—5524) \$3.75, plus postage. All-cotton oxford cloth. Stitching badly puckered. 2

**Marlboro Thrust** (Marlboro Shirt Co., 350 Fifth Ave., N.Y.C.) \$4.25. All-cotton broadcloth. This shirt had 2-piece sleeves. It required considerable ironing from about the 10th wearing and laundering, principally because of puckering of seams. 2

**Van Heusen Century Vantage** (Phillips-Van Heusen Corp.) \$5. All-cotton broadcloth with one-piece collar. The collar of this shirt showed creases, and there was uneven shrinkage of the collar-band. 2

glyceryl lactostearate and mono- and diglycerides  
 PROPYL GALLATE SORBITOL carnauba wax  
 sorbitan monostearates SODIUM ACETATE aldehydes, ketones  
 carboxymethylcellulose acetyl tartrate esters, ethers, propylene glycol  
 resinous glaze butylated hydroxyanisole channel carbon black  
 vegetable stabilizer YEAST NUTRIENT carob bean gum SODIUM DIACETATE  
 sodium desoxycholate

## Chemicals in your food

*A review of an important new book by a well qualified medical man—*

*the first book on the subject written by a physician, and amply documented*

"AMERICANS consume more chemicals in their food than any other nation. At the same time American forecasts are the gloomiest in the world about the continued rise of cancer, high blood pressure, heart disease, congenital abnormalities, etc.—in fact all the degenerative diseases. The United States leads the civilized world in chemicalized food and in degenerative diseases." These words begin the preface of an important and, we believe, epoch-making new book on chemicals in our food supply.

Dr. Franklin Bicknell, authority on vitamins in medicine, and co-author of a large treatise on the subject, is consulting physician for the French Hospital, London, and author of this new work. Dr. Bicknell points out that the addition of possibly injurious chemicals and of non-nutritive substances to food in the last few years has become so universal that it is now virtually impossible not to eat several every day. (In truth, one may eat *many* chemical additives at a single meal.) The subject, Dr. Bicknell comments, overlaps with so many disciplines—medical, nutritional, agricultural, commercial—that it tends to be ignored by each.

Dr. Bicknell writes from the English point of view, but has studied closely the work of American and other experts; any American interested in the subject will have no reason to doubt that the facts and judgments reported are fully applicable to conditions in the United States.

### A well-documented work

Dr. Bicknell's work is different from other books in this field in that it is strongly documented from highly responsible sources. Though interestingly written in lay language, it is supported by references to medical and scientific literature in ample number to be of great value to researchers in the field. The book begins with a discussion of naturally occurring poisons, of which a number occur in foods; some of these have been known since ancient times. (The mussel poisoning on the American west coast is a well-known example. In certain seasons, persons who eat mussels that have fed on a particular kind of plankton may suffer paralysis and even death.)

One chapter tells of simple accidental contaminations, such as those due to lead from pipes, which may get into drinking water or cider or beer, and those from improper use of copper utensils and galvanized buckets, which occasionally lead to copper or zinc poisoning.

### Dyes and preservatives

An important and especially valuable chapter deals with the cancer-causing chemicals that are found in the artificial colors or dyes used in food manufacture (ice cream, sherbets, margarine, butter, soft drinks, cakes, and candies). Dr. Bicknell points out the inconsistency of the attitudes and judgments of various national governments in the control of dye chemicals. (The British banned 9 of

15 dyes allowed in the U.S., and most of 30 dyes permitted in Britain are banned in the U.S.)

The use of preservatives dates back to ancient times, but some now in use are new and relatively untried, and their safety is in doubt. Britain does not permit antioxidants to be used to prevent rancidity of fats, though they are in very wide use by American manufacturers, and are acceptable to the U.S. Food and Drug Administration. A very large proportion of packaged grocery store products depend upon these anti-staling ingredients for their long shelf-life.

Dr. Bicknell observes that the good staple foods all have the disadvantage that they spoil, for what is food for us is also good food for microbes and weevils. "Food which cannot go bad is bad food," according to Dr. Bicknell, and that is a view that Consumers' Research has expressed in its very earliest BULLETINS dealing with problems of food choice beginning 30 years ago, and has emphasized on many occasions since that time. It is a view that is, of course, anathema to manufacturers of prepared and packaged foods and of food additives.

There is a brief but significant discussion of the hazards of irradiation techniques in preserving foods indefinitely, and following this a discussion which should be closely read by the American food trades and the Food and Drug Administration regarding so-called emulsifying and stabilizing agents, of which many are suspect from the point of view of possibly causing cancer—besides being inherently toxic in other ways to human beings.

### **The problem of pesticides**

One chapter deals with what are called "perverted foods," including flour, bread, margarine, and hydrogenated or hardened cooking fats. Agricultural chemicals in food including antibiotics and drugs, hormones (such as stilbestrol), pesticides and herbicides are discussed; and there is a fairly detailed treatment of the possible hazards of particular pesticides, such as DDT, the very deadly organo-phosphorous compounds: TEPP, parathion, schradan or OMPA, demeton or "Systox," EPN, malathion, and others. Proper weight is given to the fact that on most of

these substances very little of a reliable nature is known that would permit federal and state governments to decide with reasonable assurance how much, if any, could safely be used on farm crops or be permitted to be present in foods. Readers of *Chemicals in Your Food* will be interested to learn that there are now chemical substances that kill insects on plants after the insecticide has been mixed in the soil and absorbed into the plant's tissues through its roots, and others that, fed to cattle, will kill insects on or within the animals. Dr. Bicknell calls attention to the little-known fact that the popular weed killer 2,4-D, though relatively harmless orally, is dangerous in contact with the skin. Instances of grave injury are cited, when the spray was absorbed through the skin, from wet hands or clothing.

Dr. Bicknell presents an excellent brief treatment of the problems of dental decay, fluoridation, and of the harm done by soft drinks. He remarks upon the constant overconsumption of orange juice in the U.S. The juice often produces unpleasant symptoms, and adverse effects on health, including gastric distress in some adults.

### **Toxic chemicals a cause of birth defects**

A topic not previously discussed in available literature for laymen is the possibility of preventing congenital abnormalities. Dr. Bicknell quotes the distinguished W. C. Hueper, M.D., noted American cancer expert, who has said, "it is likely that at least some of the cancers observed at birth or in infants and children are attributable to an exposure of the maternal organism before or during pregnancy or lactation, to carcinogenic agents which passed the placental barrier or were secreted in the milk."

In Dr. Bicknell's opinion, congenital abnormalities, physical and mental, are mainly caused by foreign substances in foods. It seems that not only the diet of the mother is involved, but that of the father also. Some hold that absence of certain essential constituents in the diet because of the excessive processing of foods may account for a significant proportion of the accidents of birth, including premature births, toxemia, and stillbirths, and adulterants in foods and con-

taminating substances in work or living environments may be the cause of congenital deformities and congenital heart disease. Dr. Bicknell considers that toxic chemical food additives are the chief cause of these birth defects.

The importance of dietary tradition in helping to guard against the use of contaminated and highly artificial foods is noted, and this point, if given due emphasis in the American press, would tend to counteract the food industry's activities in bringing out continually new and novel food combinations and food adulterants.

#### **Prevention of cancer a possibility**

Dr. Bicknell is rare among the writers in this field in pointing out that the prevention of cancer in later life may be largely within the power of the individual and of the governmental agencies that control the use of additives and of food processing; that parents who stuff their children and adolescents with "coloured jams, coloured sweets, coloured ices, shop cakes made with emulsifiers" may be responsible for cancers of their children; that cancer in one's 50's may be predetermined by something that the body was exposed to during its first 25 years of life.

There is, says Dr. Bicknell, no dose of a cancer-causing chemical so small that it is safe. Other highly qualified experts are in full agreement with this view.

The discussion in the chapter on Prevention of Cancer is of unique value, and worth the price of the book.

An appendix that shows the structure of various dyes and detergents, fungicides, and antioxidants will be especially interesting to physicians, food manufacturers, chemists, and other technologists. The bibliography includes nearly 300 sources. There is a good index.

On the whole, this book must be regarded as indispensable to any physician concerned with obscure or difficult-to-identify causes of disease, to all who study and work in the field of cancer, to consumers who are restive under our present practice of permitting some 3000 additives to be the constant accompaniment of the food products which all of us consume. Dr. Bicknell's book is especially recommended to the responsible officials of state food and drug departments. Past experience tends to indicate that the federal officials for the most part unfortunately hold to the view that they know all that anyone needs to know on the subject of additives, and that outsiders are just wasting their time when they write on the subject, unless they are disposed to commend food and drug officials as doing a fine outstanding job of food and drug control, exercising at all times and in all their decisions a wise, shrewd, and well-balanced judgment.

It may be that other physicians, perhaps even a food technologist no longer employed by the food industries, or a toxicologist or two, will be encouraged to write in this field, now that the capable Franklin Bicknell has broken the ice. For the most part, specialists qualified in toxicology have been singularly silent on the whole problem of chemicals in food, though aware that this topic is one of extreme concern to the consuming population. The few toxicologists who have spoken up, with one or two honorable exceptions, have been mainly defenders, even advocates, of more and more potent pesticides and insecticides.

**Chemicals in Your Food and in Farm Produce: Their Harmful Effects**, by Franklin Bicknell, M.D. Copyright 1960. Cloth. \$2.95. 192 pages. 5 x 7 3/4 inches, 3/4 inch thick. Emerson Books, Inc., 251 W. 19 St., New York 11.

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## A.E.S. Gigolo

### loud-speaker

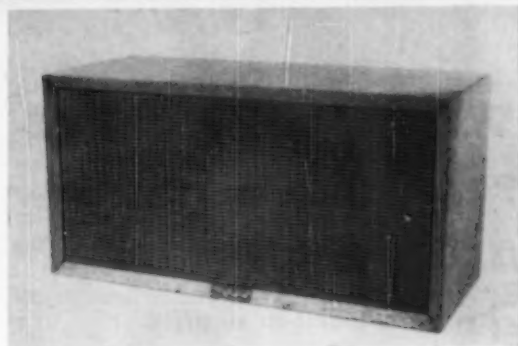
DURING the past several months many advertisements have appeared in the music and high-fidelity magazines touting a so-called "Miracle in Sound," the *A.E.S. Gigolo loud-speaker*. The ads claim this speaker system "to be the finest bookshelf unit you have ever heard, regardless of price, or your money back." Your money in this case amounts to the modest sum of \$15.

Shipping costs are extra and are not refunded if the speaker is returned. Shipping charges can be substantial, as shown by the \$4.31 express charge for CR's test sample (Cleveland, Ohio, to Washington, N.J.). Up to 150 miles it could be shipped by parcel post, at a lower cost.

Many will wonder just what \$15 and shipping costs purchases in the way of a complete loud-speaker, especially after reading the glowing claims made in the ads and comparing the low price to the \$30 or more cost of a good loud-speaker *without* any enclosing cabinet.

The *Gigolo* is a bookshelf-style loud-speaker 24 inches x 12 inches x 9½ inches deep, constructed of an unfinished but smoothly sanded wood composition material. The cabinet material is ¾ inch thick and the cabinet is solidly constructed. A neat grille cloth finishes off the front of the cabinet, which is sealed and contains a single-voice-coil 8-inch diameter loud-speaker (made in England) with a small auxiliary cone for dispersion of the high-frequency sounds. The cabinet is filled with a spun *Orlon* material. A pair of terminals is provided at the back for connection to an amplifier (8-ohm impedance).

Considering the low price, the sound from the *Gigolo* was not bad, but it certainly did not sound better, as the advertising implied it would, than an *Acoustic Research AR-2*, which is a \$90 bookshelf-size loud-speaker with high-quality sound; indeed the *Gigolo* did not sound nearly as well. Its sound was characterized by a harshness in the high



frequencies and rather prominent medium frequencies. When the claimed 19-cycle-per-second bass response was studied in CR's test, the bass was found to be sadly lacking. Clean bass frequencies were limited at the lower end to about 100 cycles per second. There was noticeable distortion at the low end of the sound spectrum; the *AR-2* is noted for not having this objectionable quality, which is common to many small or compact speakers.

At moderate volume levels and with the amplifier tone controls set for a less prominent high end and with some bass boost, the sound from the *Gigolo* was not bad; the speaker would be suitable for use as an extension speaker or as an inexpensive accessory for improving the sound output of a table-model TV set or some phonographs.

In CR's judgment, the *A.E.S. Gigolo* is worth about what its \$15 price tag indicates, but does not come close to fulfilling the promises made for it in the advertising.

For those who may have wondered, the initials A.E.S. stand for Audio Engineered Sound and bear no relationship to the well-known professional society of sound engineers, the Audio Engineering Society.

#### B. Intermediate

**A.E.S. Gigolo** (A.E.S. Inc., 3338 Payne Ave., Cleveland 14) \$15, plus shipping charges. An 8-in. loud-speaker with high-frequency diffusing cone in a cabinet 24 in. long x 12 in. high x 9½ in. deep. The cabinet is made of a composition pressed wood material. Usable frequency response, 100 to 15,000 c.p.s. Below 100 c.p.s. distortion was high. Rated power input, 75 watts, but at input above about 20 watts, sound output was considerably distorted. Over-all sound quality, fair; rather "bright," and weak on bass. This speaker is judged to be reasonably well suited as an extension speaker or for use in a low price or "budget" record-playing system.

# WATER HEATERS

## The old versus the new

*The new too often represents  
a step backward in quality.*

*The consumer needs to know  
of the important limitations  
of heater guarantees*

THERE are various ways in which designer and manufacturer can cheapen the construction of a water heater. In some instances, the end result may be relatively unimportant to the consumer; in other cases, it can be very costly. A comparison of a good 1954 model, 52-gallon, electric water heater with its 1961 counterpart (both with the same model number, and made by a very reputable company) brings to light the following major differences: The outer diameter was reduced from 24 to 22 inches, height reduced from 57 to 54½ inches, insulation thickness reduced from 3 inches to 2 inches, with no insulation now used at the bottom of the tank. Two inches is a minimum insulation thickness for an electric water heater, but some are now using even less, with a consequent increase in the heat loss from the tank and correspondingly marked increase in the monthly bill for electricity. The thickness of insulation in gas- or oil-fired water heaters is usually less than that on electric heaters of the same grade because fuel costs are much less with gas and oil and efficiency of heating and standby losses are therefore less important economically. (Standby losses are losses of heat that occur, and cost money, whether hot water is being used or not.)

The heat trap in the hot-water outlet from the tank, a very simple arrangement of piping that reduces standby heat losses, has been eliminated in the later model, as well as the built-in junction box for convenience—and safety—in connecting the electric wiring. A change has been made, too, in the design of the cold-water inlet baffle (the new one is cheaper to make—and less efficient). Finally,



Illustration courtesy of Delco Appliance Div. of General Motors Corp

and in keeping with the times, the weight has been reduced from 295 to 270 pounds, and underweight in the usual water heater may be expected generally to be reflected in a shorter rather than longer life expectancy. (It's different with people!) Of course, the consumer is "protected" by the same guarantee on both the new and old designs. The discussion that follows will throw an interesting light on the matter of water heater guarantees.

### Guarantees

The terms of the guarantee on a water heater should be studied carefully *before* purchase is made. While there are several variations in terms which can result in noticeable differences in the price you may pay in the long run if you have need to utilize the guarantee, the guarantees of the majority of the companies have pretty much the same terms. Usually, for example, a glass-lined tank with magnesium anode will carry a so-called 10-year guarantee; this provides for replacement of the tank (not including the charges for installation and cartage) if the tank should fail within the first five years. In the event of failure after five years, the charge for a new tank is pro-rated over the remaining five years on the assumption that one half the value of the heater was used up in the first five years.

Under this "5 and 5 guarantee," as it is commonly called, the replacement of a \$150 water heater which fails at the end of 7 years would *theoretically* cost you one half of \$150, or \$75, for the first 5 years' use, plus 2/5 of 75 or \$30 for years 6 and 7, a total of \$105, plus labor and cartage. But let us be realistic.

When you bought the heater, you shopped around and got what you thought was a good buy in the nature of a discount of 25 percent off a \$200 list price, giving a net price of \$150. On the basis of the \$200 list, which is the figure the dealer will use in determining the charge for replacement, the new heater will cost you  $\frac{1}{2}$  of 200 +  $\frac{2}{5}$  of 100 or \$140, a figure that is very close to the net price of a new heater. And if your heater fails after 8 years, the replacement heater will cost you \$160, or \$10 more than the price tag the dealer has on a new heater in his showroom—and labor charges for removal and installation must also be added.

In our present inflationary economy, an additional factor must be considered, for the \$200 heater you bought in 1953 for \$150 now carries a list price of \$250 (the dealer is selling it for \$190) and the replacement charges are based on current list price. So, ludicrous as it sounds, the dealer actually will now charge  $250 \div 2$  plus  $\frac{2}{5}$  of 125 or \$175 if you avail yourself of the guarantee. Thus, your original \$150 tank with a 10-year guarantee need only last 6 years to relieve the dealer and the manufacturer of their joint responsibility to you, the purchaser, for your "10-year" purchase. A nice system—for the seller, that is.

One manufacturer stated in his literature that a 10-year warranty was available at a small extra charge on one of his lines carrying a nominal 5-year guarantee. This simple, forthright statement, in our opinion, pretty well summarizes the situation. In effect, you pay an insurance premium for any guarantee, and the longer the period, the higher the premium. But the consumer can't be sure

that the heater with the 10-year guarantee will actually give service in his home for one minute longer than one guaranteed for only 5 years, or that he will save money by buying the "better" heater.

#### What kind to buy

The general arrangements of the various parts used in gas, electric, or oil water heaters are so stereotyped that details of construction, workmanship, and other factors must be examined in order to differentiate between brands. Further, the life of a heater will be dependent upon a number of factors, but principally upon the conditions under which the appliance is used in the home and on the manner of its installation and the corrosive qualities of your local water supply. For this reason, the brand of heater you choose is not as important as the type of construction, that is, whether the storage tank is made of galvanized steel and possibly has a galvanized, "glass" (vitreous enamel) lining, or a cement lining, or whether it is made of monel, copper, or aluminum alloy. It also is helpful to know whether you would have need for a protective anode, which usually adds to the cost.

Not too many years ago most manufacturers produced two distinct lines of heaters; there were two grades for gas and two for electricity. Today, however, with few exceptions, there is only one general quality of construction, and prices differ mainly depending upon the type—i.e., galvanized, "glass-lined," etc.—of heater, in the appearance of the product, and with length of guarantee. Most tanks, for example, are now 300-pound test (the minimum acceptable to



Figure 1—Insulation thickness is an important consideration with any water heater. Good insulation is particularly important with electric heaters, which should have 3 inches of insulation surrounding the tank (as in photo on left of an old tank recently taken out of service). The insulation on most of the models now being sold, however, is only 2 inches thick, as shown in the picture at the right.



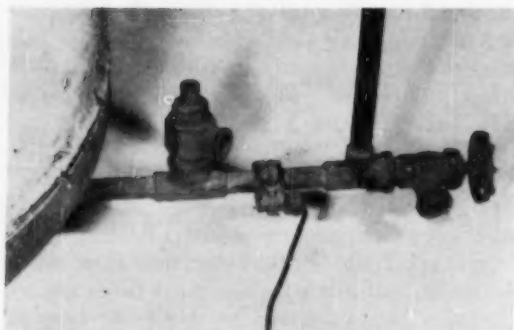


Figure 2—The valve shown near the tank—for both temperature and pressure relief—is incorrectly installed in the cold-water inlet.

the Federal Housing Administration), and only a few manufacturers supply the somewhat preferable 350-pound-test tank formerly used in the best lines of heaters.

A galvanized tank is best suited for use in those areas where the water supply is only mildly corrosive and is not too hard, and it should be used in conjunction with galvanized steel piping. Steel storage tanks in which the galvanized coating is applied after fabrication, by the "hot dip" process, are to be preferred to those fabricated from steel galvanized before fabrication.

The range of usefulness and life of a galvanized steel tank are usually increased if it is equipped with a magnesium anode (called a sacrificial anode) which tends to reduce, by means of electrochemical action, the rate of corrosion of the metal in the tank. Anodes have been found ineffective in protecting

galvanized tanks in areas where the water contains less than about 120 parts per million (7 grains of hardness) of dissolved solids, because of the low electrical conductivity of the water. (Tank corrosion is actually an electrical phenomenon.) In hard-water areas, the life of the anode will be short unless a current-limiting resistor is installed. In very-hard-water areas, above 500 parts per million, the anode is not needed, because a coating of scale-forming materials from the water will usually form on the tank walls and afford corrosion protection. Your city water company or water department can tell you about the hardness of your water supply.

A "glass-lined" steel tank may not provide longer service-life than an ordinary galvanized steel tank in some areas. However, when supplied with an anode, the glass-lined tank may be expected to give longer life simply because the anode is more effective in such a tank. (It is almost impossible to line a tank completely with the vitreous enamel, and thus there are small exposed areas; the anode is better able to protect the small area of steel remaining exposed to contact with the water than the much larger area exposed in an unlined tank.) A glass-lined tank is much to be preferred to a galvanized-steel tank if copper piping or tubing is used for plumbing.

"Stone-lined" tanks are generally galvanized tanks in which a layer of water-imperious concrete, about  $\frac{1}{2}$  inch thick, is formed as a lining. The cement lining gives a

MINIMUM CAPACITIES FOR GAS, OIL, OR ELECTRIC WATER HEATERS SUITABLE FOR USE IN HOMES AS INDICATED

Number of bathrooms		1 or 1-1/2			2 or 2-1/2		
Number of bedrooms		2	3	4	3	4	5
Storage-type heater, gas- or oil-fired	Tank capacity, gallons	30	30	40	40	40	50
	Fuel input in 1000's of Btu per hour	30	30	30	33	33	35
Storage-type heater, electric	Tank capacity, gallons	52	52	66	66	66	82
	Input in kilowatts	Upper element	1.5	1.5	2.0	2.0	2.5
		Lower element	1.0	1.0	1.25	1.25	1.5
		Single element	2.5	2.5	3.0	3.0	4.0



tank a relatively long life with most waters, and problems of galvanic action and tank corrosion are mitigated to a large extent. However, the stone-lined tanks are heavy, and the lining may be cracked inadvertently by rough handling during shipment or installation, and thus become ineffective without the purchaser's knowing of the condition.

Heaters are available that have tanks made of an *aluminum* alloy. Aluminum tanks do not require use of sacrificial anodes and can be used in conjunction with higher water temperatures without serious shortening of their useful life. They are about 50 percent more expensive than galvanized steel and glass-lined tanks.

Copper and copper-lined storage tanks, while expensive, are much longer lived than galvanized tanks in most areas, and are suitable for use with very hot (180-degree) water.

#### What size to buy

The demands made on a water heater vary from day to day, indeed, from hour to hour. Generally, it is necessary that any water heater, whether using gas, electricity, or oil for fuel, be capable of supplying the needs of an automatic washer, as well as the normal requirements of any home for water for dishwashing, bathing, cooking, and other uses.

The amount of hot water a heater can supply is dependent upon its storage capacity and its "recovery rate"—the speed with which it can heat the cold water coming into the tank as the hot water is drawn off. Gas- and oil-burning water heaters usually have high recovery rates and thus do not require as large a storage tank as is needed with the usual electric heater. ("High recovery" electric water heaters are available, but their use is not permitted by many utilities and city codes.)

#### Safety controls and accessories

Most gas water heaters are now supplied with what are called "100 percent cut-off" controls (required by the FHA) which function to cut off the flow of gas to both the main burner and the pilot burner in the event the pilot light should be extinguished for one reason or another. Every water heater should also be equipped with a temperature relief valve, which opens if the water is overheated, and a

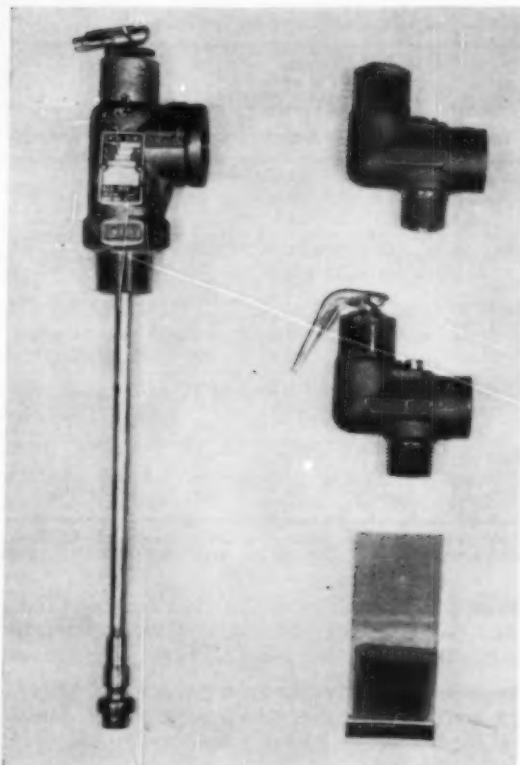


Figure 3—The temperature- and pressure-relief valve on the left has a small lever at the top for checking the operation of the pressure section (desirable). The temperature sensing element is located within the top of the tank. The less expensive valves on the right are of a different type; the lower one has the desirable lever for checking the functioning of the pressure relief section. Both employ fusible plugs which melt if the water gets too hot.

pressure relief valve which opens if pressure within the system becomes excessive. Usually, the latter two valves are combined (see Figure 3). In addition, gas and electric heaters can be purchased equipped with a high-temperature-actuated energy shutoff device; such a shutoff, which cuts off the flow of gas or electricity, is an important safeguard on any heater.

#### Gas-fired automatic storage water heaters

For use with natural, manufactured, or LP (bottled) gas. Heaters are round upright models unless otherwise noted.

##### A. Recommended

**Alumilux** (Clayton & Lambert Mfg. Co., 1701 Dixie Highway, Louisville 10, Ky.) Aluminum tank. *Series A* and *AA* (normal recovery), *Series AH* and *AAH* (high-recovery models).

APPROXIMATE COST OF HEATING DOMESTIC  
SERVICE WATER WITH VARIOUS FUELS

Fuel and unit of sale	No. of units required to heat 100 gal. water*	Price per unit, cents	Cost to heat 100 gal., cents	Gal. per cent
Electricity, kwhr.	24.5	1	.25	4.1
	24.5	2	.49	2.0
	24.5	3	.74	1.3
Gas, natural, 100 cu. ft.	1.3	10	.13	7.7
	1.3	15	.20	5.0
	1.3	20	.26	3.9
Gas, manufactured, 100 cu. ft.	2.4	10	.24	4.2
	2.4	15	.36	2.8
	2.4	20	.48	2.1
Gas, bottled LP, therm	1.3	20	.26	3.9
	1.3	35	.46	2.2
	1.3	50	.65	1.5
Fuel oil, gallon (gun-type burner)	1.1	10	.11	9.1
	1.1	15	.17	5.9
	1.1	20	.22	4.6

\* 100° rise in temperature of incoming water. Includes fuel to make up for the heat wasted in the form of heat to the room or up the chimney.

**Basmor** (Bastian-Morley Co., Inc., La Porte, Ind.) *Aire-Lok*, *Keystone* (glass lined), *Marvel*, *Champion* (glass lined).

**Bradford** (Pennsylvania-Bradford Appliance Corp., 24 and Ellsworth Sts., Philadelphia 46) *Deluxe* (glass lined), *Table-top* (glass lined), *Standard* (glass lined).

**Crane** (same as *Basmor*).

**Delco** (Delco Appliance Div., General Motors Corp., Rochester 1, N. Y.) Models *GWH-30C*, *40C*, *50C*. Copper-lined tank, high recovery rate.

**Fairway** (Montgomery Ward & Co., Chicago) Two lines (glass).

**Hoffman** (Clayton & Lambert Mfg. Co.) *Series G*, *GH*, *TRG*, *30-GBR* (all glass).

**Homart** (Sears, Roebuck & Co., Chicago 7) *Series 400* and *600*.

**Honor-Bilt** (Sears, Roebuck & Co.) Regular and table-top models (all glass).

**Hotstream** (The Hotstream Heater Co., 2363 E. 69, Cleveland 4) *J-40* (quick recovery), *G3*, *G4*, *C*, *CD*, *GT-30 Table-top* (all glass lined); *SL-C*, *SL-X* (both cement lined).

**Jackson** (W. L. Jackson Mfg. Co., 1222 E. 40, Chattanooga 7, Tenn.) *Deluxe Series* (glass lined or galvanized with 10-yr. guarantee); *Master Series* (glass lined or galvanized) in regular models; also table-top models with 10-yr. guarantee.

**John Wood** (John Wood Co., Conshohocken, Pa.) *Deluxe* (galvanized or glass), regular and table top; *BG Series* (glass); *DH* (galvanized); *DHG* (glass).

**Koven** (L. O. Koven & Bro., Inc., Richboynnton Rd., Dover, N.J.) *Standard*, *Deluxe*, and *KGCL Series* (glass); *KSG Series* (stone).

**Mission** (Gaffers & Sattler, 8111 W. Beverly Blvd., Los Angeles 48) *Laguna*, *Stubby*, *Diamondglas Deluxe*, *Diamondglas Supreme* (all glass).

**Mor-Flo** (Mor-Flo Heater Corp., 2176 E. 76 St., Cleveland 3) Glass-lined and aluminum tanks.

**Ruud** (Ruud Mfg. Co., Kalamazoo 24, Mich.) *Highspeed* and *Laundrymaster* (galvanized); *Monel* and *Monel Laundrymaster* (monel metal); *Alco Alloy* (aluminum alloy).

**Saf-T-Hot** (M. M. Hedges Mfg. Co., Inc., E. Main and Madison, Chattanooga 8, Tenn.) *Super Series* and *Standard Series* (glass); *Deluxe Series* (galvanized).

**Sands** (Sands Mfg. Co., 5407 Sweeney Ave., Cleveland 27) *KG*, *RSG*, *RG*, *SG* models (glass).

**Switson** (Switson Industries Ltd., Welland, Ontario) *Glass-line Series*.

**Trageser** (Trageser Copper Works, Inc., N.Y. International Airport, Jamaica 3, N.Y.) Copper-lined tank.

**Value Leader** (Montgomery Ward & Co.) Glass.

#### B. Intermediate

Heaters in this section are rated *B. Intermediate* because of such factors as absence of fully automatic controls (for example, a pilot burner control), and shorter guarantees. Prices are usually somewhat less than for otherwise similar *A-Recommended* models.

**Basmor** (Bastian-Morley Co., Inc.) *Keystone* (galvanized), *Champion* (galvanized), *Three Hundred* and *Four Hundred* (galvanized), and *Scott Series*.

**Bradford** (Pennsylvania-Bradford Appliance Corp.) Table top, *Series B* (both galvanized).

**Crane** (same as *Basmor*).

**Hoffman** (Clayton & Lambert Mfg. Co.) *Series TSG* (glass), table-top models.

**Hotstream** (The Hotstream Heater Co.) *H1*, *H3* (both galvanized).

**Jackson** (W. L. Jackson Mfg. Co.) *Standard Series*, *Deluxe Series*, and *Table-Top* (all galvanized) with 5-yr. guarantee.

**Mission** (Gaffers & Sattler) *Crenshaw* (glass).

**Mor-Flo** (Mor-Flo Heater Corp.) Galvanized tank.

**Saf-T-Hot** (M. M. Hedges Mfg. Co.) *Standard Series* (galvanized).

**Sands** (Sands Mfg. Co.) *RG* models (galvanized).

## Electric automatic storage water heaters

Models listed have "normal" recovery time unless otherwise noted.

### A. Recommended

**Alumilux** (Clayton & Lambert Mfg. Co., 1701 Dixie Highway, Louisville 10, Ky.) Aluminum tank.

**Basmor** (Bastian-Morley Co., Inc., La Porte, Ind.) *Selectric Six Hundred*, both normal and fast-recovery types, in upright or table-top models.

**Bradford** (Pennsylvania-Bradford Appliance Corp., 24 and Ellsworth Sts., Philadelphia 46) *Deluxe* (glass and galvanized) and *Standard* (glass lined), in upright or table-top models.

**Fairway** (Montgomery Ward & Co., Chicago) Both normal and fast-recovery models.

**Frigidaire** (Frigidaire Div., General Motors Corp., Dayton 1, Ohio) *Imperial* (glass), *Deluxe* (galvanized), table-top and upright models; normal and fast-recovery types.

**Hoffman** (Clayton & Lambert Mfg. Co.) *Series GL*, regular type (glass); *Series TR*, table top (galvanized).

**Homart** (Sears, Roebuck & Co., Chicago 7) *400* and *600 Series* (glass), upright and table-top models, normal and fast-recovery.

**Hotpoint** (Hotpoint Inc., 5600 W. Taylor, Chicago 44) Both upright and table-top models (glass, cement, and galvanized), normal and fast-recovery types.

**Hotstream** (The Hotstream Heater Co., Cleveland 4) *E-SL* (stone); *E-GL* (glass); *ETT-GL Table Top* (glass); *EM* (galvanized).

**Jackson** (W. L. Jackson Mfg. Co., 1222 E. 40 St., Chattanooga 7, Tenn.) Upright and table-top types (galvanized and glass with 10-yr. warranty).

**John Wood** (John Wood Co., Conshohocken, Pa.) *Deluxe Series* (galvanized or glass); *Master Series* (glass); *Deluxe Series* (galvanized or glass), table top.

**Koven** (L. O. Koven & Bro., Inc., Richboynton Rd., Dover, N.J.) Upright models: *KSL* (stone), *KGE* (glass), and *KR* (galvanized). Table-top models: *KTSL* (stone), *KTG* (glass), and *KTR* (galvanized).

**Mor-Flo** (Mor-Flo Heater Corp., 2176 E. 76 St., Cleveland 3) Glass, upright and table-top models; *Master* (galvanized).

**Permaglas** (A. O. Smith Corp., Milwaukee) Normal and fast recovery (glass) in upright and table-top models.

**Rheem** (Rheem Mfg. Co., New York 18; distributed by General Electric Supply Co.) *Imperial* and *Standard* models (glass); *Imperial* model (galvanized).

**Sands** (Sands Mfg. Co., 5407 Sweeney Ave., Cleveland 27) *G* models, 6- and 12-gal. capacities (glass); *PG* models (glass) in upright and table top; *WG* models (glass).

**Westinghouse** (Westinghouse Electric Co., Columbus, Ohio) Both upright and table-top models in normal and fast-recovery types (galvanized or glass).

### B. Intermediate

**Bradford** (Pennsylvania-Bradford Appliance Corp.) *Standard* (galvanized).

**Hoffman** (Clayton & Lambert Mfg. Co.) *Series TS* (galvanized).

**Hotstream** (The Hotstream Heater Co.) *E* (galvanized), upright. Small volume models: *S5-EGl* (glass), *S5-ESL* (stone), *S6-E* and *S12-E*.

**Jackson** (W. L. Jackson Mfg. Co.) Upright and table-top models (galvanized with 5-yr. warranty).

**John Wood** (John Wood Co.) *Master Series* (galvanized), upright and table-top models.

**Koven** (L. O. Koven & Bro.) *K* and *KT* (galvanized), upright and table-top, respectively.

**Mor-Flo** (Mor-Flo Heater Corp.) *Custom* (galvanized).

**Rheem** (Rheem Mfg. Co.) *Custom* (galvanized).

**Sands** (Sands Mfg. Co.) *J* models, 3- to 20-gal. capacities (galvanized).

## Oil-fired water heaters

### A. Recommended

**Koven** (L. O. Koven & Bro., Inc., Richboynton Rd., Dover, N.J.) Stone, with gun-type burner.

**Fairway** (Montgomery Ward & Co., Chicago) Gun-type burner (glass).

**Radiant** (Radiant Utilities Corp., Brooklyn 14, N.Y.) *PK Series* (glass), gun-type burner.

**Sun-Ray** (Sun-Ray Burner Mfg. Corp., Jamaica 35, N.Y.) Copper- or glass-lined models, gun-type burner.

**U.S.-Carlin** (The Carlin Co., Wethersfield, Conn.) Glass- or copper-lined models, gun-type burner.

### B. Intermediate

**Esso** (Esso Standard, Div. of Humble Oil & Refining Co., 15 W. 51 St., N.Y.C.) Gun-type burner.

**Homart** (Sears, Roebuck & Co., Chicago 7) Gun-type burner.

**Hotstream** (The Hotstream Heater Co.) *Model F-46* (galvanized) with vaporizing pot-type burner.

## Slide projectors

AUTOMATIC and semiautomatic projectors have several advantages over non-automatic projectors and are considered well worth their extra cost for anyone who has a large collection of slides. These are the chief advantages:

As the slides are arranged in trays each holding from 30 to 40 slides (or in some semiautomatic projectors, a stack of up to 36 slides is placed in a compartment in one operation), the slides do not have to be handled individually; the automatic handling reduces wear and tear on slides;

Slides do not have to be mounted in glass or metal mounts (the saving in mounts more than pays for the cost of the trays used with an automatic projector);

Slides are less likely to get out of order of sequence or to be shown upside down or reversed left to right; and the problem of selecting slides and inserting them in a carrier, in dim light, is eliminated.

There are many mediocre projectors but very few really good ones on the market. CR considers the *Anscomatic* at \$119.50 (reported in the August 1960 BULLETIN) the best fully-automatic projector tested to date. This projector is available from Sears under the *Tower* brand name for \$76.88, plus postage, and is also available in a semiautomatic model for \$48.77, plus postage.

### Automatic for 35 mm. and Super Slides

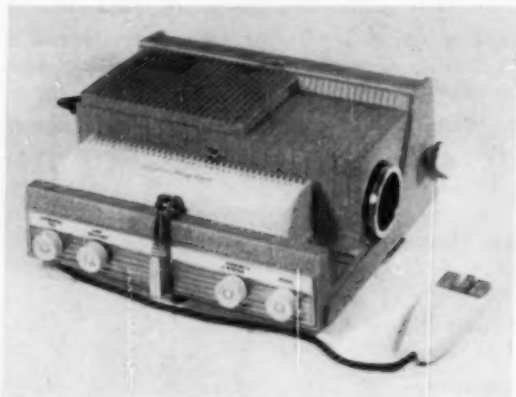
#### C. Not Recommended

**Sawyer's 500 R** (Sawyer's, Inc., Portland 7, Oreg.) \$99.95 with one slide tray, having a capacity of 36 slides; the slides can be intermixed and mounted in cardboard, metal, glass, or plastic (a desirable feature). Coated

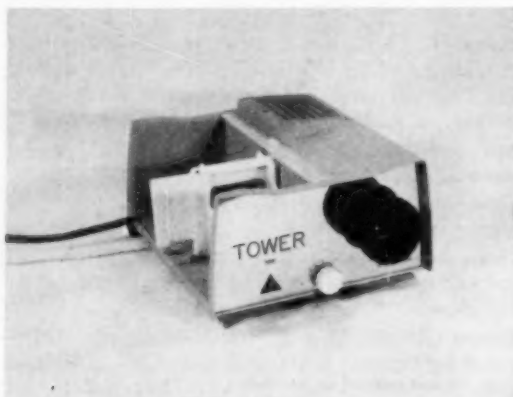
*Anastigmat*  $f/3.5$  lens of 4-in. focal length. The projector is focused either by turning a knob on the side or by use of a remote-control device. 500-watt Type DAK lamp, blower-cooled. Warm air is directed over the slides in the changer; the preheating of the slides helps to prevent them from popping out of focus during projection. Removable cover for lamp housing permits easy access for lamp replacement and cleaning of optical system. Double condenser, one element of which acts as a heat filter. Control panel has a knob switch to turn lamp and blower on or off simultaneously, a knob which can be set for forward or reverse operation, and a knob to correct horizontal tilt. The elevating device is controlled by a lever at the front of the projector.

Remote control device, to be held in the operator's hand, has three buttons, one to change slides, one to set projector for forward or reverse, and one for focusing. Moving the focusing button to the left moves the lens in slowly, to the right, out. Projector can also be operated manually by pressing in and pulling out the changer arm. The *Sawyer 500 R* is not equipped with a timer for fully automatic operation. "Easy Edit" slide trays, which sell for \$1.45 each, have hinged covers, making them convenient to load and permitting rearrangement of slides without removal of the tray from projector. Non-spill feature was effective only for cardboard-mounted slides, not for metal-glass-mounted slides. This projector, however, will accept the cheaper TDC-type trays, which are available for as little as 30¢ each. The projector has a self-contained cover with convenient carrying handle.

Evenness of illumination was good; light output, good. Resolving power of the lens was poor; while it resolved 56 lines per mm. at the center, it resolved only 14 lines per mm. at edges. When center of test image was in focus, it was necessary to bring the screen about 12 in. closer to the projector to make the edges sharp (large curvature of image field). Temperature of slide, 195° (too high). Weight, 13 lb. 10 oz. Cheaper models



Sawyer's 500 R



Tower 150



of this projector are available at \$54.50, \$69.95, and \$89.95, which lack some of the features of the 500 R. Model 500 T at \$119.95 is similar, but incorporates a timer for fully automatic operation. The *A-Recommended* Sears automatic Tower 500-watt projector at \$87.50 (see August 1960 CONSUMER BULLETIN) is considered to be a much better buy than the Sawyer.

### Semiautomatic for 35 mm. and Super Slides

#### B. Intermediate

**Tower 150** (Sears-Roebuck's Cat. No. 3-9824) \$19.95, plus postage. Extra lamp, \$2.45. Capacity, 36 2 x 2 in. cardboard-mounted slides. Will not accept regular glass- or metal-mounted slides. Coated *f/3.5 Lumray Anastigmat* projection lens of 4-in. focal length. The

projector is focused by simply sliding the lens tube in and out. 150-watt *Tru-Focus* lamp. Removable door on lamp housing permits easy access for lamp replacement. Double condenser, one element of which acts as a heat filter. Access is easily obtained to the condensers for cleaning by removing a cover plate under the projector (4 screws). The *Prestomatic* changer operated satisfactorily. It had the advantage of requiring no slide trays. Up to 36 slides are placed in the front compartment; each slide, after being projected, is transported to the rear compartment of the changer. Light output, low, about normal for a 150-watt projector. For best results the *Tower 150* should be used in a darkened room at a distance of not more than about 10 ft. from the screen. Evenness of illumination, satisfactory. Quality of lens, only fair. Temperature of slide, 180°F, satisfactory. Weight, 5 lb. 2 oz.

## Instant flat tire repair?

(The beginning of this article is on page 39)

was forced into the hole by the pressure. The car was then driven approximately three miles to a service station where the tire was deflated and reinflated to the normal pressure, as called for by the instructions. The car was then driven normally to determine whether the repair would be a permanent one.

People used to noting the difference between advertising claims for a product, and what one learns upon buying it, will be interested to note that there was no intimation in the advertisement that the "instant" flat tire repair was likely not to be a permanent repair, but only a stop-gap measure. (The *instruction sheet* said: "If necessary, a permanent repair should be made at earliest convenience.") After the car had been driven 60 miles, the car was stopped and the driver noticed noise of air escaping from the tire, and the tire went completely flat in about five minutes. "Permanent repair" of the leak was very evidently in order at that point.

We believe that a device of this kind may be regarded by many as a worth-while purchase for a quick emergency repair of a minor puncture on the road. It does have certain rather serious limitations which become evident after one has bought the device and has carefully read and considered the instructions. (1) The device will not work on a tubeless tire if the bead has separated from the rim (as would likely occur if the car had been run for some distance with the tire flat, and might occur for other reasons). (2) The repair may

very likely not be permanent, and it would be best to head for a service station.

#### B. Intermediate

**Repair'n Air** (National Dynamics Corp., 220 E. 23 St., New York 10) \$4.95, plus 50c shipping charge. Judged as serviceable only for a temporary repair, to get one to the nearest service station, at which point a permanent repair should be made, even if the tire seems to be holding air satisfactorily at that time. The instructions say do not store above 120°. This presents a real problem in a hot climate, since the temperature inside the car or its trunk will very often go far above that figure on a hot day, and handling a device which may be at the point of bursting because of overpressure could involve very serious hazard to the user (assuming that the 120° limit has been correctly established by the official or governmental agencies concerned). We should be inclined to recommend against use of a device in the 120°-temperature-limit category except during relatively cool weather, and with due precautions against very high temperatures being reached inside the car. Except in a very hot climate, opening of several windows of a car would normally keep the air temperature in the car safely under the 120° mark. If windows are not opened, because, for example, of valuable items left in the car, temperatures of the order of 160° or more may easily be reached in some parts of a car. The floor at the rear, on the side away from the exhaust pipe, and the bottom of the trunk (away from the exhaust) are likely to be relatively cool spots. ¶The device repairs only one puncture; must then be refilled. Advertising claims that company will refill or replace used *Repair'n Air* containers for \$2.98, postpaid.

## To make that tank of gasoline go farther

THERE are many ways of saving gasoline in one's driving. One of the best ways, of course, is to own a *Volkswagen* or a *Renault*. The next best thing to owning a small foreign car is to drive an American compact car (one without an automatic transmission) instead of a long, wide, heavy, fully-equipped car in the behemoth category.

But whatever car one drives, there are ways in which one can increase substantially the number of miles that can be squeezed out of a gallon of gasoline and a quart of oil. A dazzling, squealing take-off from the light in low gear can waste a great deal of fuel. Driving at 40 miles per hour instead of 60 miles per hour where 40 miles per hour is safe and practicable, can reduce the cost of gasoline for a given number of miles by 20 percent (a not insignificant saving; compared with 70 miles per hour, the saving at 40 is 30 percent). A car going 70 miles per hour uses up to twice as much fuel per mile as at 30.

In buying a new car, if you live in level country, and low gasoline consumption rather than fast acceleration is important to you, you should order the lower rear-axle gear ratio that may be available for a given make and model. (A high gear ratio gives fast acceleration but means higher gasoline consumption, not just during acceleration but at all times.) Most automobile manufacturers offer a choice of rear axle ratios to permit better adaptation of their cars to the kind of terrain in which average driving will be done.

Don't equip with automatic transmission, power steering, air conditioning, unless you don't mind buying and paying for a good deal more gasoline (up to 30 percent).

Anticipate traffic lights and traffic signs, instead of braking to a sudden stop; coast to an anticipated stop when this is practicable, as it usually is. Step up your speed, within proper limits, when approaching a hill or preparing to pass a car or truck. There will be less necessity of shifting to a lower gear or using the "kick-down" gear shift if this is done.

Don't idle the engine unnecessarily, for



Accurate testing of gasoline mileage requires instruments and control of speed, but an approximate determination will often serve.

idling can cost half a gallon of fuel an hour and is likely, moreover, to foul the engine with carbon deposits.

Short trips in the winter are fuel wasters. In some instances such trips can be minimized by a reasonable amount of planning. Cleaning spark plugs and adjusting the gaps correctly, say every 4000 miles, can save 10 percent of the gasoline. Don't try to save oil by using a heavier grade than appropriate to the car and its condition. For a new car, use oil of the viscosity specified by the Owners Manual. Too thick an oil can cost over a mile per gallon of gasoline. Having the carburetor checked occasionally may point the means toward fuel saving, and a dirty air cleaner can cost miles per gallon, also. For maximum miles per gallon on long trips, it may be worth while to inflate the tires above the normal pressure. The increase in pressure may be of the order of 4 to 6 pounds per square inch.

Continuing use of snow tires into the summer will cost some gasoline mileage.

Keep the tank well filled, especially in hot weather, to reduce fuel loss by evaporation, but don't fill it right up to the neck, for overfilling can mean leakage of fuel through the tank cap as the gasoline tank heats up.

It will pay to check on your miles per gallon occasionally with some care, for a sudden decrease in miles per gallon may give a clue to something going wrong with the engine or its accessories.

The automatic choke may need attention occasionally, for one that does not function

correctly can cause waste of a good deal of gasoline. If the car has a hand choke, use it as sparingly as possible. Much use or unnecessary use of a hand choke wastes gasoline and may cause dilution of the oil in the crankcase.

Don't race the engine when the car is being started in cold weather. The engine should be warmed up a little before starting off, but should be run at no greater speed than is needed to keep it from stalling.

In any weather, it is best to drive fairly slowly and not to climb a steep hill or otherwise load up the engine, until it is properly warmed up. Get out of low gear as soon as practicable. Maintain fairly steady speeds, for widely varying speeds use extra gasoline. (However, one should bear in mind that on long drives, where fatigue can be a factor in safety, changes of driving speeds can be an aid in reducing monotony; and monotony on fast highways has often caused dangerous inattention to the problem of keeping on the road, at proper distances from cars and trucks ahead, and out of danger in general.)

Where road conditions impose no low-

speed limit and one is going somewhere in no hurry at all, it is worth remembering that the most miles per gallon will be gotten at around 30 miles per hour (at a lower speed on a small foreign car), and this is nearly 30 percent better than at 60. During periods of fast acceleration a car may give only 5 miles per gallon, and if you use the kick-down feature in the automatic transmission, the miles per gallon will be even lower.

Power steering and air conditioning together cost the loss of about 3 miles per gallon, and a large part of the total will be due to air conditioning alone.

Needless braking burns up energy which must be paid for by use of gasoline.

Just by way of information, it is said that the average car in the United States gets about 14 miles per gallon. A very few can do twice that well, or even somewhat better. Just by way of making concrete the cost of poor gasoline mileage: at 15 miles per gallon, the cost for gasoline at 30 cents a gallon will run about \$200 for 10,000 miles a year; at 30 miles per gallon, \$100 a year.

## **Coin-operated dry-cleaning machines**

*If not properly maintained and used, may present a hazard to consumers*

AN Information Exchange Bulletin from the University of California notes that careless handling of the new equipment which uses perchloroethylene in processing garments in coin-operated dry-cleaning installations may result in hazards to persons using the equipment. While the danger will not often be present, it is important that consumers who make use of coin-operated dry-cleaning equipment should know of the possibility.

There may be instances where the liquid, which is volatile and gives off a poisonous vapor, may run across the floor or be spilled upon it or there may be leakage of fumes through the appliance door. There is a possibility that garments may be taken away while they are still only partially dried. The editor of the University of California Bulletin notes that it is conceivable that a child might be wrapped in a blanket or a foamed-plastic-lined garment from which the solvent vapors

have not been removed completely; in such a case, the child might be exposed to the vapors, particularly if left for a time in a closed automobile. In such a case, serious overexposure to toxic vapors might be possible. Skin contact with the liquid solvent is always hazardous.

To be safe, do not work or stay in an area where solvent has been spilled, or where vapors are in evidence, and do not clean items, such as foam products or polyurethane padding in clothing or other articles, which may carry out substantial quantities of the liquid to be evaporated later indoors or in a closed car.

Manufacturers of "coin-op" dry-cleaning equipment are urged to keep close watch over their installations and the maintenance they receive, in order to minimize the possibility of accidental poisoning by solvent vapors, or by contact with the liquid.

## Latex paints for exterior use—Part I

LATEX PAINTS have been used as interior wall paints for perhaps ten years, and for exterior surfaces of concrete or masonry for nearly as long, but their use as exterior house paints on wood is recent, and they have been widely sold for this purpose only for the past two or three years.

In a latex or emulsion paint the vehicle-binder (the liquid emulsion that carries the pigment) is not a relatively simple oil like the linseed oil used in an oil paint, but instead is an emulsion, in tiny droplets in water, somewhat like the minute droplets of butterfat in cream. The pigments in the latex paint are also dispersed in the water, whereas in an oil paint they are dispersed in the linseed oil.

When a latex paint is applied to a surface, evaporation of the water brings the droplets of binder and particles of pigment tightly together, and a surface tension effect of the escaping water presses them into a tight film which then cannot be re-emulsified or dissolved in water. Thus the structure of the coating of latex paint differs greatly from that of an oil paint, in which the pigments are completely immersed within a continuous liquid layer which remains continuous after it has dried or hardened.

On a porous surface, such as masonry or wood, the water from a latex paint usually penetrates somewhat into the porous surface (and dries out again later on) but the binding vehicle and pigments are filtered out and do not penetrate the surface appreciably. With linseed oil paint, on the other hand, the oil vehicle can spread into and penetrate the porous surface to a certain extent. Latex paints usually can be applied to new plaster without requiring a priming coat, whereas oil paints must usually be preceded by a suitable priming coat meant for use on plaster.

The vehicle binder in the earliest of the latex paints to be widely sold for use as a wall paint in this country was butadiene-styrene latex, which is still popular for interior paints but not for the new exterior house paints. The new exterior house paints for the most part use either acrylic latex or polyvinyl latex. Both "acrylic" and "polyvinyl" are rather

*The new latex paints for exterior use are claimed to last 50 percent to 100 percent longer than "most house paints" or "ordinary house paints," and to provide excellent resistance to moisture, blistering, cracking, and peeling. Ability to provide moisture resistance and to control blistering, cracking, and peeling would be important, if true, as claimed.*

*Part II of this article, to appear in the next issue of Consumer Bulletin, will discuss:*

- 1) The importance of using the right priming paint.*
- 2) Advantages and disadvantages of latex exterior paints.*
- 3) Tinting latex paints.*
- 4) Label formulas and their value to the consumer.*
- 5) Tentative ratings based on a period of test-fence exposure of some of the better known brands.*

general terms that cover a considerable number of "polymers" or "copolymers." There can be significant differences between the "acrylic latex" or the "polyvinyl latex" in different brands of paint of their respective types.

### **How good are the new paints?**

Although the latex house paints have been on the market in substantial amounts only for two or three years, they have been tested on houses in the course of their development for a reasonable number of years, long enough to demonstrate that they are capable of giving good service under favorable circumstances. When all goes well, they should equal in durability the best of the oil paints. It is certain that there are conditions under which latex paints can fail badly and that some of the adverse conditions are of a nature that has not been experienced with oil paints.

In sum, the latex exterior paints will be likely to perform satisfactorily in some cases, but will get into trouble in others.



### **Repainting over existing oil paint**

For some time, the major use of the new latex paint presumably will be for repainting houses that have already been painted. Here the new paints offer the least prospect of improvement over past painting practices. In the first place, one of the major problems with the latex paints is doubtful adhesion to the surfaces of previously applied oil paints that have weathered to a chalky condition—and no oil-painted surface is ready to be repainted until it has reached the chalky condition.

As already mentioned, the latex paints do not permit the vehicle-binder to penetrate porous surfaces, which include chalky surfaces, as well as oil paint vehicles do. There have been early failures, within as little as six months after painting, with latex paints applied over chalky oil paint. The latex coating may simply peel off, leaving the oil paint behind. To avoid such failure of the new paint to adhere to chalky old paint, some makers of latex paint recommend thorough scrubbing of the old surface to remove all the chalk. This has not been customary or a requisite in the past in use of oil paints, at least to anything like the extent now considered necessary for latex paint. Indeed, with oil paints, a moderately chalky old paint surface has been considered desirable as a base for repainting, whereas it has been considered hazardous to repaint over old paint that still retained a gloss.

Some manufacturers of latex paints recommend that an oil-paint priming coat be applied to the chalky surface before the latex paint is applied as a finish coat. Still others recommend that a certain amount of linseed oil or tung oil be added to the latex paint for the first coat on the old chalky surface. This procedure, however, should probably be followed only when the maker of the latex paint specifically recommends it, for the oil may not be compatible with all latex paints.

After care has been taken by the painter to avoid trouble from failure of the latex paint to adhere to old, chalky paint, there will be obtained only a composite coating consisting of the old oil paint covered by the new latex paint. There is no good reason to expect that the outcome will be much better, if any, than if the surface had been repainted with one

fresh coat of the oil paint, with only the limited sort of preparation of the surface that is customary in use of an oil paint. If the old paint coating was beginning to suffer from any of the difficulties due to excessive thickness of coating, heterogeneous composition (coats of two or more kinds of oil paint that are not compatible), or sensitiveness to moisture failure, merely covering it with a coating of latex paint will not improve the situation.

To sum up, if the old paint coating was maintaining satisfactory coating properties, there is a good chance that the latex paint will do about as well, but no greater assurance than would be obtainable with use of another coat of the old oil paint.

### **Number of coats and amount of work required**

One striking difference between the latex paints and the oil paints lies in the fact that the latex paints (and probably any paint in which the vehicle is an emulsion) necessarily contain much less non-volatile material to stay in the coating after it dries than the oil paints do. Before 1943, oil paints of good quality contained only about  $\frac{1}{8}$  gallon of volatile liquid per gallon of paint and the more or less "oil-restricted" paints of recent years seldom contain more than  $\frac{1}{4}$  gallon of volatile liquid per gallon. On the other hand, the latex paints necessarily contain almost  $\frac{3}{8}$  gallon of volatile liquid (in this case water) because it takes nearly this much water to disperse both the vehicle-binder and the pigments.

It is not possible to apply the latex paints in very much thicker coats than the oil paints; in fact their consistency and brushing characteristics are such that the user is likely to spread them out over as much surface per gallon as he would an oil paint. (Makers of latex paints, in their printed directions, often caution against brushing the paints out too thinly.) A coat of latex paint, when it has dried, is usually only about half as thick as a coat of oil paint would be.

Practically all makers of latex paints recommend that two coats of the latex paint be applied (where only one coat of oil paint ordinarily would be used). Thus for new wood the usual recommendation is one coat of priming paint, which commonly is an oil paint, fol-

lowed by two coats of latex paint, where with oil paint, the normal practice would be one coat of priming paint followed by only one coat of oil-paint finishing coat. In each case, the minimum dry film thickness of 4.0 mils, as recommended by the Federal Housing Administration, would not be attained. (4 mils would require a priming coat and two subsequent coats of oil paint, when oil paint is used.) For repainting with latex paint, the makers of such paint may recommend either one coat of oil-paint primer followed by one or two coats of latex paint or two coats of the latex paint without use of a primer.

Makers of latex paint argue that the requirement of two coats where one coat of oil paint would suffice is largely offset by the fact that the latex paint dries so fast that a second

coat can be applied before it becomes necessary to move a ladder or scaffold. For a repaint job over previous oil paint, however, where one added coat of the oil paint may be all that is needed, it will still take more time and labor to apply the latex paint, and the moving of ladder or scaffold will not differ for the two cases. Likewise, for painting new wood, if a comparison is between applying one coat of oil primer and one coat of oil finish on the one hand, and one coat of oil primer and two coats of latex paint on the other, the latex paint system will take more time, labor, and ladder moving than if an oil paint were used.

In sum, 1) care must be taken not to spread latex exterior paints too thin; 2) labor costs for painting with exterior latex paints will generally be higher than with oil paints.

## Fairchild 8 mm. sound movie equipment

*(The beginning of this article is on page 2)*

not do well at full aperture. The image was fairly good in the center, but sharpness fell off rapidly toward the edges. At apertures of  $f/5.6$  to  $f/8$ , sharpness improved but still was judged only fair. The projector lens, however, was a good one, as shown by the satisfactory projection of a sharply defined film.

### Camera

#### B. Intermediate (qualified)

**Fairchild Cinephonic Eight Sound Movie Camera** (Fairchild Camera & Instrument Corp., Yonkers, N. Y.) \$249.50, including microphone, earphone, 85B filter, and battery charger.

An 8 mm. camera with built-in magnetic sound-on-film recording system. Size,  $6\frac{1}{4}$  in. high x 8 in. long x  $3\frac{3}{4}$  in. wide. Weight,  $5\frac{1}{2}$  lb. Lens: *Fairchild Cinphar*  $f/1.8$  of 13 mm. focal length in a fixed-focus mounting. Film capacity: 50 ft. double eight (100 ft. total, about 6 min. showing time) *Fairchild* sound film, \$10.95 including processing. Amplifier utilizes 5 transistors. The camera is powered by a rechargeable nickel-cadmium battery claimed to be good for 800 ft. of film per charge. Controls: combination shutter-release-amplifier-on button, volume control. Optical view-finder with adjustment for parallax correction, and a black-lined frame for use with a telephoto lens. Body was die-cast aluminum.

**Performance:** Film was easy to thread (a guide line is imprinted on the camera). Quality of lens at  $f/1.8$ , poor; at  $f/8$ , fair. Sound quality, fairly good. Over-all acoustical response, 50 cycles per

second to 5000 c.p.s. Distortion, low. Shutter-release button was difficult to operate without causing motion of the camera. Due to the weight of this camera, a tripod, when used, should be of the heavy-duty type. Film counter indicates number of feet of film remaining to be exposed. Films taken with this camera can be shown, without sound, on any conventional 8 mm. projector. With a better lens, this camera would be rated *A. Recommended*.

### Projector

#### A. Recommended

**Fairchild Cinephonic Eight Sound Movie Projector, Model HLH-1** (Fairchild Camera & Instrument Corp.) \$259.50, including 6-in. loud-speaker and microphone. Description: 8 mm. sound projector  $13\frac{1}{2}$  in. high x 8 in. wide x 11 in. deep. Weight, 26 lb., including speaker case (9 x 10 x  $6\frac{1}{2}$  in.) which weighs 5 lb. Capacity, 400 ft. of film. Uses 150-watt pre-focused *True-Flector* lamp. Lens, *Fairchild*  $f/1.6$  of  $\frac{3}{4}$ -in. focal length. Amplifier can be used for playback of sound track, recording of new sound track, or recording over the original sound track. Speed of projection, 24 and 16 frames per second. Sound is recorded 52 frames ahead of picture. Amplifier: 3 tubes plus rectifier.

**Performance:** Light output, good; evenness of illumination, good. Lens quality, good. Sound output from 6-in. speaker, fairly good. Distortion, low. Silent 8 mm. films can be used with this projector. If a magnetic sound track is added after processing, the *Fairchild* projector can be used to record sound on the film.

## Letters from our readers

### Removing floor wax

*I would like to know if you can advise a satisfactory way of removing repeated coats of floor wax from linoleum?*

*F. H. K., Pennsylvania*

► To remove a coating of floor wax from linoleum, you could use a prepared wax remover or cleaner specially formulated and sold for this purpose. Follow the directions on the container.

Another method is to use a mild detergent and hot water, letting the solution remain only long enough to soften the wax and grime. Follow up by removing the dirty water and rinsing with clear water until all traces of detergent and wax are removed. (The need for rinsing applies to any proprietary cleaner, too.)

You may need some fine steel wool for areas where there are stubborn soil and wax accumulations. Let the floor dry before applying wax again.

### Hi-fi stereo components

*I am hard pressed for some accurate information on hi-fi stereo components. Your answer to the following question would be greatly appreciated.*

*AR-1 Woofer and Jantszen 130 Tweeter vs. AR-3 vs. KLH Woofer and Jantszen 65 Tweeter vs. KLH \$200 speaker. Listening to the combinations in a dealer's shop, I liked the Jantszen tweeters very much. However, they seemed to overshadow the bass. Which is best?*

*F. J. H., Pennsylvania*

► Both the Acoustic Research and KLH systems are excellent, and we would not care to express a preference for one over the other. On this type of problem, your choice should be made on the basis of your own listening tests, and if you are unable to distinguish between any two of the group named, our advice would be to purchase the cheaper unit.

If you found excessive treble in your listening test with the electrostatic tweeters, very possibly this characteristic would be corrected readily by use of a volume control or "pad" of proper value in the tweeter circuit. The unbalance is due to the high efficiency of the electrostatic tweeter.

### Headroom in cars

*With reference to your report in your April issue, as to headroom in the 1961 Lark.*

*According to Automotive News' specifications chart on Page 19 of the 1961 Almanac, the Lark had 34.75 inches of headroom in front. However, a change was made in production beginning at some*

*time in April, increasing the headroom in front one inch. This is about the best of all compact cars.*

*It seems odd that you pointed out that the Comet's 33.8 inches of headroom in front (as shown in Automotive News' specifications) was adequate, yet the Lark's 34.75 (now almost 36) was a disadvantage.*

*R. S., New York*

► Tables of automotive data sometimes must be taken with a grain of salt—or with specialized information. Measurements of headroom which do not take into account the deflection of the seat under the normal load imposed by the occupant do not show the amount of headroom available. Thus the published data can seriously mislead consumers who do not know about the correct method of determining headroom that reflects conditions of actual use.

The Lark has a much firmer seat than the Comet. The latter's softer seats deflect about 2 inches more under load than those of the Lark; the difference accounts for additional headroom in the Comet. We think if you will actually sit in the cars that you mention, as we do, and measure the distance above your head, you will find that our comments regarding headroom are quite in order, and correct.

### Buying vitamins

*I have so often heard vitamins advertised on radio. One company claims to be able to offer quality vitamins for considerably less cost.*

*Can you tell me if their firm and their claims are reliable?*

*R. M. M., Wisconsin*

► If your physician has directed you to take a specific vitamin or vitamin-and-mineral preparation, it would be advisable to buy products made by a reputable, well-known drug manufacturer of standing and experience, and bearing his label, not from a firm that carries on a mail-order business in various vitamin-mineral pills and potions.

Physicians are not likely to prescribe vitamins for long-term use, and the extra cost of buying vitamins from a reputable drug house which is likely to have first-rate analytical control facilities will probably not be large when the time of use is limited. If the time of use is not limited, and if use of the vitamin preparations is not under a physician's direction, it is our view that the vitamins are best not taken. And some mixed-vitamin preparations are badly formulated and can cause real harm, even interfere with a correct medical diagnosis of a dangerous disease condition.

## New ways in the watch trade for gypping customers

*"Jeweled" or "17 jewels" can let you down*

*badly when you buy a watch nowadays; the*

*Federal Trade Commission has abandoned a safeguard*

*that once afforded some protection to consumers*

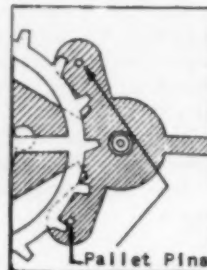
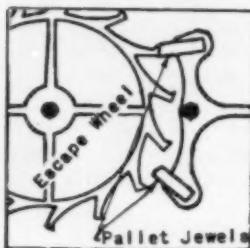
MANY jewels in a watch, even suitable numbers of them placed in the right spots, are no guarantee of a good and long-lasting timekeeper; several other factors are of great importance, too. Some makers of watches have been able to take advantage of the popular assumption that the presence of jewels automatically assures quality, by putting 7 or 17 or even more jewels into watches that are essentially of poor quality and workmanship.

The jewels themselves, usually synthetic sapphires, cost only 2 to 5 cents apiece. Manufacturers are therefore tempted to add jewels, as window dressing, in watches which are made of badly-finished, inferior-quality parts, inexpertly assembled.

Until recently there was some protection for the consumer against at least one species of inferior "jeweled" watch. This particular kind of watch has jewels, perhaps many of them, but two, important ones, not easily seen by the layman, are omitted; these are the "pallet stones" on the escapement lever. In place of these jewels, steel pins are used; hence the designation of such watches as having "pin-lever" escapements, or simply as "pin-lever" watches.

In the operation of the watch, the pallet jewels (or pins) act as stops against which the teeth of the escape wheel strike as that wheel turns in small timed steps controlled by oscillation of the balance wheel. It is the striking of the escape wheel teeth against the pallet jewels or pins which causes the ticking sound of a watch, usually at the rate of 18,000 ticks per hour. Only hard polished pallet *jewels* are capable of standing up under the millions of repeated impacts; pallet *pins* invariably wear out of shape in a relatively short time, causing the watch to run irregularly or to stop in a year or two, or even less. Pin-lever escapements are the kind used in the many popular cheap watches which have no jewels at all.

Repairs of pin-lever watches are generally unsatisfactory and short-lived. It may often turn out that repairs cost more than buying another



Enlarged view of parts of escape wheel and jeweled lever, with pallet jewels, at the left. At the right is an escape wheel in a pin-lever watch, showing the ends of the steel pallet pins which are used instead of jewels.

watch. When you take a pin-lever watch to a watchmaker for repair, you are likely to be told that he does not care to repair a watch of that grade. This is not mere snobbishness on the part of the watchmaker. He does not like to take in watches for repair if he cannot stand behind the job which he does, and he cannot do this on a watch which is inherently constructed for only a short working life.

### Misleading reference to jewels

Most buyers of watches, of course, have no knowledge about jeweled-lever and pin-lever escapements. They just assume that jeweled watches ought to have whatever "innards" are necessary to make them work well for a period of years. Until a short time ago, the Federal Trade Commission seemed to think so, too, and took the view that if a watch was advertised as having jewels, it ought to have a jeweled lever.

The federal agency had a policy of issuing orders prohibiting, as misleading to the public, the advertising of watches as "7-jewel" or "17-jewel" if they incorporated the inferior pin-lever type of escapement.

Despite the F.T.C.'s steps taken when it got around to moving against some sellers of watches,

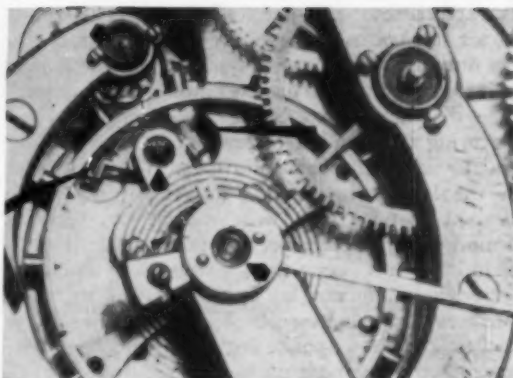


thousands of jeweled watches with pin-lever movements were sold to unwary consumers. Very likely, however, the regulatory agency's attitude helped reduce the number of such watches marketed. Reputable sellers, aware of the F.T.C. position, tended to avoid advertising pin-lever watches as 7-jewel and 17-jewel.

Now, however, the lid is off! The Federal Trade Commission has reversed the former view that 17 jewels meant 17 jewels *in the right places* and has come to the conclusion that there was no legal or factual basis for holding that the jewels should be in the right places or in the places where it had been customary for makers of fine watches to place them. The Commission, therefore, decided that the importer who called a sub-standard watch movement a 17-jewel movement had a right to do so, even when the manufacturer had omitted the important pallet jewels.

The Commission officially took the ground that the "American consumer does not associate a watch marked '17 jewels' with any particular type of escapement. The evidence further shows that the American consumer is not aware of any distinction between a pin lever and a jewel lever watch." The Commission further held that since 17-jewel watches without jeweled levers have in the past been marked 17 jewels, there was a precedent for not requiring the 17 jewels to be in the right places; on this precedent, the watch importer got off of the hook with the F.T.C. The Commission's trial examiner was for giving the consumer a *little* protection, for he expressed the view that a one-jewel watch movement should not be referred to as "jeweled" since the trade does not think jeweled applies unless the movement comprises at least 7 functioning jewels.

Since the Commission has withdrawn the pro-



The watch above is a good one, with jewels where they ought to be and fine finish throughout. The pallet stones are clearly seen at the tips of the two slender pointers. Other jewels are marked with black triangles.

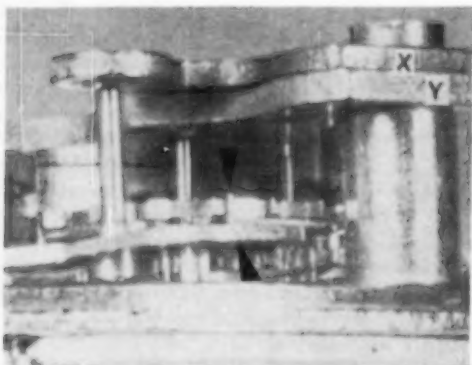
tection formerly given with regard to the matter of 17 jewels, consumers now buying watches of unknown or little-known brands should first satisfy themselves as to the number of jewels the watch contains and particularly that there are pallet jewels at the two critical points of the movement. (There are some pretty shady practices in the watch trade. Some manufacturers have even placed jewels for display purposes, so to speak, on the side of the movement which the observer can see and have left them out on the opposite side of the movement which is against the dial and thus not visible.)

### The pin-lever watch

The accompanying pictures will enable any close observer to see the difference between the so-called pin-lever watch and a well-made Swiss or American watch of a first-class maker. Design details vary from one line to another in the good watches, but so-called pin-lever movements, sometimes called Roskopf movements, are of poor construction, even though they may look fine to the observer who may see only the outside of the case—or even to some who see the inside.

Few consumers know what to look for in judging a watch movement, since the sealed waterproof watch has become very common, and thus few who buy a watch nowadays can look inside the watch case. Watch buyers today are supposed to buy even expensive watches without knowing what the movements are like, and the average retailer assumes that even if the consumer can see a movement, the information he may gain thereby would be of no use to him.

Some watches that actually have 17 jewels are being offered nowadays that are constructed with the same poor design and workmanship that are



A watch of low grade, with pin-lever construction. The upper black triangle points to one of the pins. The other triangle points to the lever. Note the rough finish on surfaces marked X and Y.

characteristic of non-jeweled watches. The consumer has come, through the years, to associate the number of jewels with quality, and the maker of low-grade watches has been able to take advantage of the customer's lack of information by featuring the number of jewels and disregarding equally important considerations. The *poor finish* of the low-grade 17-jewel movement would be evident at once to a watchmaker, but remains unnoticed by the average consumer, unless he can examine at the same time a well-made Swiss- or American-made watch. In fine jeweled watches, surfaces of parts are smooth and clean in outline and finish; the opposite is true of the cheap pin-lever watches, whose parts are used just as they come from the machines.

### Care is necessary in buying

Now that the jewelers do not commonly open the waterproof case to show the "innards" to a customer, the purchaser of a watch will do well to make a special point of buying from a store of high reputation with good standards of salesmanship and conservative advertising. In general, however, unless you are in a position to satisfy yourself about the type of watch through examining the movement or by your confidence in the jeweler, it is wise to assume that watches selling much below \$20 are more than likely to have the low-grade pin-lever movements that are short-lived and cannot be satisfactorily repaired. Such a watch may be of some value as a present for a child, but it will not be cheap when its cost per year is considered, and when it needs repair you will find (1) the jeweler will not work on it or (2) if you send it to the company service shop, the work may take a long time, cost as much as though the watch were a good one, and the results of the repair may be short-lived.

A Better Business Bureau recently reported an instance of a serviceman who was charged \$120 for a watch allegedly having 21 jewels and a white gold back. The watch had 17 jewels, the back was stainless steel, and a fair price would have been about \$50. The store's dishonest behavior got it a place on the Army's "off limits" list. In most big cities one must perhaps expect to find a good many watch dealers who will not fail to turn a sharp corner in their selling if the customer approaches the watch buying problem with the assumption that a given number of dollars should unfailingly buy a watch of a higher grade than one-third or one-half that number of dollars.

### To repair a watch, or discard it?

Not many years ago, if the consumer had a watch that was broken or did not keep accurate time,

he was pretty sure to have it repaired and adjusted; watches were bought carefully, for the consumer realized that his purchase might have to serve him for many years. Today's watches, however, are for the most part short-lived and commonly have more need for frequent repairs and adjustments than the older watches did.

The cost of watchmakers' skill has risen to such high figures that it is often cheaper nowadays to discard an old watch and buy a new properly jeweled one at a modest price than it is to get the old one repaired. Reliable dealers are now selling some makes of Swiss-made watches having 17-jewels (in the right places) as low as \$15 to \$21 and 7-jewel watches as low as \$12 to \$16.50 (tax included).

### Selecting a watch repairman

There are still a good many millions of first-rate watches in users' hands, and those who own such watches often have need to locate a good watchmaker to carry out cleaning, a repair, or adjustment.

It is not always easy to decide whether a watch is really a good one and worth the cost of cleaning, repairing, or overhauling. Often only an expert watchmaker can tell. If it is a good watch, one should entrust the job only to a workman who is known to have skill and integrity. In most small cities a good watchmaker can be located by inquiry of people who have had work done satisfactorily on watches of good grade, or one may take the watch to a leading jewelry store, one of the old-fashioned type, which has been in business for a number of years at the same location. Such a store, jealous of its good reputation in the community, very often employs one or more skilled, careful, and experienced watch repairmen.

For the benefit of those who have no means of locating a good watchmaker in their immediate area or who have a watch or timepiece of unusually high grade or precision deserving of especially careful and skillful handling, we give here the names of several watchmakers well qualified to adjust and repair such watches. The names are as follows: Mr. Arthur Fliegau, Box 66, Washington, N.J.; Mr. Walter Hersey, 606 Main St., Reading, Mass. (Mr. Hersey is a member and Financial Secretary of the Horological Society of Mass.); Mr. Hamilton E. Pease, 51 Empire St., Providence 3, R.I. (Mr. Pease is a Certified Master Watchmaker and a member of the American Watchmakers Institute—formerly Horological Institute of America; he is also qualified to repair electric-battery-powered watches made by the Hamilton Watch Co.).

It is not difficult to ship a watch safely to a distant place for repairs. One should place it in a

small box in the center of a heavy cardboard box with a generous clearance on all sides, using crumpled bits of newspaper around the inner box for padding. The package should be marked FRAGILE, and the amount of insurance should be adequate to cover possible loss or major damage in shipment.

### Read ads with care

A closing comment: Never buy a watch on the

advertising claim that it is "jeweled," of "precision workmanship," or "electronically adjusted." The terms have become quite meaningless, and will mislead more often than they inform. The industry needs standards that protect the consumer, and the state and city officials who have the power to restrain false advertising and deceptive trade practices have been asleep, or negligent, where selling and advertising of watches are concerned.

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\*Entries marked (\*) are longer or more comprehensive items.

NOTE: Back issues of CONSUMER BULLETIN (1960-1961) are available at 40 cents each, 1959 and earlier issues, 50 cents each. Thirty popular reprints are listed on p. 24 of June 1961 issue.

## *An old product gets its face lifted . . . a case history*

REMEMBER a hair tonic called *Lucky Tiger*? An advertising journal recently discussed the rise and fall of its sales and its current successful comeback, achieved by revamping its package and advertising. The product began to acquire notoriety after a report appeared in the Journal of the American Medical Association, 34 years ago, in August 1927, headed "Lucky Tiger, a dangerous nostrum sold for dandruff, eczema and sore feet." At that time, among the claims made for the product on the carton were that it: "Kills dandruff germs—stops itching. Corrects eczematous conditions of the scalp, promotes luxuriant growth. . . . Stops falling hair." In an accompanying leaflet, it was recommended for "chigger, mosquito and other insect bites," and for "tired, aching and sore feet."

Analysis by the A.M.A. Laboratory indicated that the essential ingredients of the product were alcohol, sodium salicylate, and sodium arsenite. The A.M.A. warned that a product with these ingredients had no place among legitimate home "remedies," and indicated that reports of severe skin irritation following the use of *Lucky Tiger* had been received from physicians.

In one of our early Handbooks of Buying, issued by Consumers' Research in October 1931, *Lucky Tiger* was listed in the *C-Not-Recommended* column because of its arsenic content. Arsenic is not only a potential source of systemic poisoning, but it is a cause of premature falling hair. As our ANNUAL BULLETIN, September 1935, pointed out, some baffling cases of arsenic poisoning were traced to the use of hair "tonics" and dandruff "cures." Presumably the manufacturer of *Lucky Tiger* recognized the desirability of eliminating this potentially hazardous substance from the formula, for, in 1935, a state chemist analyzed the product and reported finding no arsenic present. The product was found to contain sodium salicylate, which may be designed to soften the dandruff scales.

With the passage of the present Food, Drug, and Cosmetic Act in June 1938, it was no

longer possible to advertise hair tonics with sweeping claims for effectiveness as dandruff "cures," and hair "restorers." Basic data, brought out in actions by the Federal Trade Commission against a wide variety of hair preparations, legally established the fact that dandruff was not a disease, but a natural process by which the dead cells of the skin are sloughed off, and removed by brushing and shampooing the hair; further that nothing known to science could cure what is technically known as "male baldness." *Lucky Tiger* Manufacturing Co., after a brush with the F.T.C., finally stipulated in 1941 that it would cease advertising that *Lucky Tiger* would remove the cause of dandruff or had any therapeutic value in treating it except for temporary removal of loose dandruff scales; the company agreed to refrain from claiming that the product would stop itching, prevent loss of hair, or eliminate scalp disorders.

Apparently the enforced toning down of the claims of performance affected the sales of *Lucky Tiger* adversely, for, according to a case study reported in an advertising trade journal early in 1961, the hair tonic had drifted into obscurity. Then the firm decided to do something about the decline in sales and hired a motivational researcher to study the market. On the basis of his recommendations, the package was restyled, eliminating the somewhat old-fashioned picture of a lady with long flowing tresses patting a [lucky?] tiger. One side of the new carton carries a cartoon drawing of a tiger cat and the restrained claim "For Grooming. . . Prevents Dryness." This supported the new advertising message, put forth chiefly over spot radio to a background of rock n' roll music, or music "with a beat" aimed at the teen-age audience, which emphasizes the effectiveness of the product in keeping the hair "smooth all day."

The active ingredients currently declared on the label, as required by the Food, Drug, and Cosmetics Act, are: alcohol, sodium salicylate, and oxyquinoline phosphate. Alcohol gives a mild tingle to the scalp so that the user



has a feeling that something is happening. Sodium salicylate tends to soften the dandruff flakes. Oxyquinoline phosphate is a mild antiseptic and deodorizer. There have occasionally been reports that the long-continued use of alcohol hair tonics may have a drying, even slightly irritating, effect on the scalp, but if *Lucky Tiger* is applied chiefly on the hair to keep it in order, probably no great harm will result.

On another panel of the new carton, we find the contribution of "scientific research" to advertising. We learn that: "Improved Lucky Tiger Hair Tonic with LT-6 is the complete all purpose hair preparation. Superior for Grooming, Prevention of Dryness, Control of Loose Dandruff, and Stimulation of the Scalp. Contains LT-6, a research laboratory development having the highly desirable property of oil, without its tendency to become thick, greasy, gummy, or rancid. Easily removed from the hair with soap or other types of

shampoo preparations. Medicated and Antiseptic. . . ."

We predict that the Federal Trade Commission, if it shows an interest in *Lucky Tiger*, will have trouble with these claims, which are carefully phrased by a skilled word expert to suggest or imply, to many, more than they say. The younger generation at whom they are beamed may not have learned from previous experience how to read such advertising, and certainly will have no memory of the earlier more blatant and, in the light of present knowledge, quite unscientific and somewhat ridiculous claims.

Apparently the teen-agers are impressed with the new pitch. The advertising journal reports that the company has now successfully reconstructed its "public image" and that sales of its products to the new audience have tripled in three years. Such is the power of research—in semantics, that is.

### Emendations to Consumer Bulletin

#### Washer-dryer combinations

Page 10, Aug. '61 Bulletin

The suggested list price of the *Speed Queen Model 325 Washer-Dryer Combination* is \$430 in areas most distant from the factory and somewhat less in areas located closer to the factory (instead of \$500 as given in the listing).

#### Floor polishing machines

Page 9, July '61 Bulletin

Change the rating of the *Singer Model P-21 to B. Intermediate*. It was found that, after a time, the plastic dispenser for floor wax with which the machine is equipped increased in length when partly filled with liquid wax solution to an extent that it may or may not be possible to insert it properly in the place provided, depending upon the time the solution is left in the container.

#### Automobile air conditioners

Page 12, June '61 Bulletin

In the brief description of the operation of an automobile air conditioner appearing in the legend to the right of the illustration on page 12, the wording was in error in indicating that the compressor was located in the line between the condenser and the expansion valve. The proper position of the compressor is that shown in the drawing, in the run of tubing that connects the evaporator to the condenser.

#### Upright food freezers

Page 18, Col. 2, July '61 Bulletin

Referring to the legend under the picture of the *General Electric* freezer: the interior liner was not made of plastic, but of steel

#### Scissors and shears

Page 13, Col. 1, Oct. '60 Bulletin

Delete the following sentences: "There is no particular advantage in shears that are marked inlaid. The term is used for its sales appeal, but such shears and scissors sell for about the same price as ordinary shears of equivalent quality." The words quoted have been misinterpreted as implying that inlaid shears are inferior to solid steel shears, which is not the case. The only shears with inlaid blades tested by Consumers' Research, *Wiss No. 127*, were approximately equivalent in quality in terms of hardness and durability to the much higher-priced *Henckels Twin Brand No. 578* (but the latter was superior in smoothness of operation).

Page 14, Col. 1

*Cuticut No. 512* and *Cuticut No. 10*. Delete statements: "Judged to be next [or second] in quality to *Twin Brand*" and move both to *B. Intermediate*. The carbon content of steel in samples of these shears tested was below the figure set by the federal specifications.

*Marks No. 102* and *Marks No. 402*. Move to *B. Intermediate*. The carbon content of steel in samples of these shears tested was below the figure set by the federal specifications.

# Phonograph Records

BY WALTER F. GRUENINGER

Please Note: Stereo records are indicated by the symbol Ⓢ. Ratings (AA, A, B, etc.) apply first to the quality of interpretation, second to the fidelity of the recording. Most performances are available on both stereo and regular LP records.

Ⓢ**Brahms: Liebeslieder Walzer.** Serkin and Fleisher (pianists), Valente, Kleinman, Conner, Singher (singers) & **Schubert: The Shepherd on the Rock.** Serkin (piano), Wright (clarinet), Valente (soprano). Columbia MS 6236. \$5.98. It is difficult to imagine a better performance of this light-hearted German music. The dedicated singers stand rather close to the mikes, giving less prominence to the instrumentalists than I prefer, but the criticism is minor. The strange *Shepherd* is new to me. This is a "Chamber Music from Marlboro" release. Those who like it may wish to investigate the companion disk, Columbia MS 6243, which features Brahms' *Horn Trio*, and is equally well performed and recorded. AA AA

Ⓢ**Brahms: String Sextet, Op. 18.** New York String Sextet. Twentieth-Century Fox SFX 4008. \$4.98. Standard, romantic repertory generally enjoyed by those who like strings. The group, which includes some of New York City's best-known chamber music and orchestra players, has been well received in concert performances. They play expressively though with less fervor than sometimes heard in this piece. The engineers have chosen a dead studio sound, perhaps in the interest of clarity, but Brahms thrives on more resonance. AA A

Ⓢ**Delibes: Highlights from Sylvia and Coppélia.** Paris Conservatoire Orchestra under Rignold. RCA Victor LSC 2485. \$5.98. Transparent, full-bodied recording that comes close to matching pre-recorded tape which, generally, surpasses disks in sonics. The performance of this delightful, melodic ballet music achieves the highest standards. AA AA

Ⓢ**Hindemith: String Quartet No. 3 & Beethoven: String Quartet No. 11.** The Kroll Quartet. Epic BC 1133. \$5.98. The Hindemith may surprise you with its easy-to-take melodies which the Kroll group plays handsomely. The famous Op. 95 of Beethoven needs no introduction to chamber music fans. Beautifully played, too. The recorded sound falls below what we have a right to expect. AA B

Ⓢ**Liszt: Hungarian Rhapsodies 2 and 3 & Enesco: Roumanian Rhapsodies 1 and 2.** London Symphony under Dorati. Mercury SR 90235. \$5.98. Gay and nostalgic pieces nearly everyone enjoys. Dorati knows them thoroughly and his orchestra plays expressively. Rich recording but greater volume contrast, as heard on pre-recorded tape, would improve matters. AA A

Ⓢ**Mozart: Mass in C Major ("Coronation").** Maria Stader, Oralia Dominguez, Ernst Haefliger, Michel Roux, The Elizabeth Brasseur Choir, Orchestra Lamoureux, etc., under Markevitch (1 side) and Bassoon Concerto in B Flat Major. Maurice Allard (bassoon soloist) (1 side). Deutsche Grammophon 138131. \$6.98. A short but dramatic, well conceived mass. Principally choral. First-rate performance. Markevitch makes the most of the drama. Superbly recorded. Schwann's catalog already lists seven recordings of the bassoon concerto composed by Mozart when he was 18. The composition exploits the solo instrument fully and provides a delightful, unique side. Splendid playing and recording. AA AA

Ⓢ**Offenbach: Orpheus in the Underworld.** June Bronhill, Kevin Miller, Job Weaving, etc., under Faris. Angel S 35903. \$5.98. Highlights, in English, of the Sadler's Wells Theatre Production. Fresh, young voices of acceptable quality. Lively direction and sprightly tunes make this an enjoyable disk of light music. Very well recorded with good stereo separation, singers close to the mike, orchestra away with commendably spacious sound. A AA

Ⓢ**Romberg: The Desert Song.** Edmund Hockridge, June Bronhill, etc., under Michael Collins. Angel S 35905. \$5.98. Another in the series of "great shows" recorded in England, along with *The Most Happy Fella*, *Song of Norway*,

*Flower Drum Song*, *Orpheus in the Underworld*. The singers in this 1926 operetta featuring love and romance are better than competent. As a matter of fact, they top all recorded competition. The orchestrations sound like none I have heard before, but they never get in the way. Well directed and recorded. A AA

Ⓢ**Strauss: Salome's Dance, Till Eulenspiegel, Interludes from Frau Ohne Schatten.** Philharmonia Orchestra under Leinsdorf. Capitol SP 8548. \$5.98. Leinsdorf, who will become the principal director of the Boston Symphony in a year, discloses the strands of instrumentation better than I have heard in any recording of the popular *Dance* and *Till*. The transparent, spacious engineering helps enormously. In fact, audiophiles may find this disk worth using to demonstrate the glory of their rigs! The *Interludes*, arranged by Leinsdorf, are less well known than the other pieces. Overall, Leinsdorf's conducting impresses but does not evoke the highest praise. A AA

Ⓢ**Tchaikovsky: Romeo and Juliet & Strauss: Don Juan.** Vienna Philharmonic under von Karajan. London CS 6209. \$5.98. Popular scores in the symphonic repertory. It is obvious von Karajan has carefully prepared the performance. He makes the most of the drama while never exaggerating the contrasting lyric sections. Rich, full-bodied recording. AA AA

Ⓢ**French Overtures.** L'Orchestre de la Suisse Romande under Ansermet. London CS 6205. \$5.98. Included are *Orpheus in Hades*, *La Belle Hélène*, *Le Roi d'Ys*, and three others. Ansermet conducts with more polish than most musicians who record this music. In place of the rousing, slap-dash commonly heard, he stresses the symphonic qualities. Excellent sound. AA AA

Ⓢ**New Dimensions in Organ Sound.** Catherine Crozier (organ). Washington Records SWAS XIV. \$5.98. Aeolian Skinner built this organ in 1959 for a church in Independence, Mo. Miss Crozier plays with feeling and taste and technical excellence. She features the romantic, lengthy, German *Sonata on the 94th Psalm*, by Reubke. Shorter numbers by Langlais and Alain round out the program. The sound is full, pleasing, resonant. Some background hiss. AA A

**The Branko Krstanovich Chorus of Yugoslavia at Carnegie Hall.** Bogdan Babich, conductor. Monitor MP 576. \$4.98. If you ever doubt the excellence of mono recording, listen to this disk. Here are 80 voices picked up at a performance in Carnegie Hall, sounding as realistic as the best studio disk. Let's give credit to David B. Hancock who recorded the performance using extensively modified RCA ribbon velocity mikes that were superseded in the early 30's, the jacket claims, by inferior models! Most of the songs are Yugoslav, alternately gay and sad and quite dramatic. All are superbly sung by this group, which has won many prizes at World Festivals. AA AA

Ⓢ**The Virtuoso Band.** Royal Artillery Band under Major S. V. Hays. Vanguard VSD 2093. \$5.95. Superb solo and ensemble playing by England's oldest and largest military band. You'll hear such diversified numbers as "Warriors Three," "Helter Skelter," "Variations on My Old Kentucky Home," "The Tubaphone Gallop," "Medley of French Marches." The recording engineers spread the sound most satisfactorily, and keep the volume well in hand so you never find yourself blasted out of the chair by a *sforzando*. Altogether, an exceptional disk of light band music. AA AA

Ⓢ**Wayfaring Stranger.** Richard Levitt (counter tenor). Period PRST 2751. \$4.98. If you like the high sound of a counter tenor, this may be your dish. Generally aided by guitar and flute, Levitt sings tastefully and clearly such old favorites as "Foggy Foggy Dew," "Black is the Color," "Barbara Allen," "Poor Wayfaring Stranger." Very well recorded. AA AA

## Ratings of Current Motion Pictures

THIS SECTION aims to give critical consumers a digest of opinion from a wide range of motion picture reviews, including the motion picture trade press, leading newspapers and magazines—some 17 different periodicals in all. The motion picture ratings which follow thus do not represent the judgment of a single person, but are based on an analysis of critics' reviews.

The sources of the reviews are:

*Boxoffice, Cue, Daily News (N. Y.), The Exhibitor, Films in Review, Joint Estimates of Current Motion Pictures, Motion Picture Herald, National Legion of Decency, New York Herald Tribune, New York Times, The New Yorker, Parents' Magazine, Release of the B. A. R. Preview Committee, Reviews and Ratings by the Protestant Motion Picture Council, The Tablet, Time, Variety (weekly).*

The figures preceding the title of the picture indicate the number of critics whose judgments of its entertainment values warrant a rating of A (recommended), B (intermediate), or C (not recommended).

Audience suitability is indicated by "A" for adults, "Y" for young people (14-18), and "C" for children, at the end of each line.

Descriptive abbreviations are as follows:

adv—adventure  
biog—biography  
c—in color (Anasco, Eastman, Technicolor, Trucolor, Warner Color, etc.)  
car—cartoon  
com—comedy  
cri—crime and capture of criminals  
doc—documentary  
dr—drama  
fan—fantasy  
hist—founded on historical incident  
mel—melodrama  
mus—musical  
mys—mystery  
nov—dramatization of a novel  
rom—romance  
sci—science fiction  
soc—social-problem drama  
trav—travelogue  
war—dealing with the lives of people in wartime  
wes—western

A	B	C		A	B	C	
3	13	—	Absent-Minded Professor, The .com AY	—	3	1	Cry Freedom (Filipino) . . . . . war-mel AY
—	1	2	Ada . . . . . dr-c A	—	—	3	Curse of the Undead . . . . . wes A
—	—	—	Adventure, The (see L'Avventura)	—	7	6	Curse of the Werewolf (British) . . . . . mel-c A
—	1	2	Affair in Kamakura (Japanese) . . . . . dr A	—	—	—	—
2	3	—	Alakazam the Great . . . . . car-c AY	—	3	2	David and Goliath (Italian) . . . . . mel-c AY
—	5	5	(Japanese) . . . . . mus-com-c AY	1	5	9	Day of the Gun, The . . . . . nov-c A
—	1	9	All Hands on Deck . . . . . com-c A	1	10	2	Days of Thrills and Laughter . . . . . com AY
—	2	1	All in a Night's Work . . . . . mys-mel A	—	—	3	Dead One, The . . . . . cri-mel A
—	3	4	Amazing Mr. Callaghan, The . . . . . sci-dr AY	—	4	1	Deadly Companions, The . . . . . dr-c A
—	6	6	(French) . . . . . dr A	—	3	2	Dondi . . . . . dr AY
—	—	3	Amazing Transparent Man, . . . . . sci-dr AY	—	—	4	Dr. Blood's Coffin (British) . . . . . mel-c AY
—	—	3	The . . . . . dr A	—	3	2	Eve Wants to Sleep (Polish) . . . . . com A
—	1	2	Anna's Sin (Italian) . . . . . war-dr A	—	—	3	Explosive Generation, The . . . . . soc-dr A
—	6	2	Armored Command . . . . . war-dr A	—	3	1	Eye for an Eye, An (French) . . . . . dr-c A
—	6	9	Ashes and Diamonds (Polish) . . . . . sci-c A	1	9	1	Fabulous World of Jules Verne, . . . . . adv AY
—	2	2	Atlas (British) . . . . . adv-c AY	4	7	1	The (Czechoslovak) . . . . . dr-c A
—	2	1	Back Street . . . . . dr-c A	—	—	3	Fanny . . . . . com A
—	1	3	Ballad of Naroyama, The . . . . . dr-c A	—	5	4	Fast Set, The (French) . . . . . com A
—	2	3	(Japanese) . . . . . dr-c A	—	—	—	—
—	1	3	Battle at Bloody Beach, The . . . . . mel-c AY	—	6	4	Ferry to Hong Kong . . . . . mel-c AY
—	2	1	Bernadette of Lourdes (French) . . . . . com AY	—	6	4	(British) . . . . . dr A
—	2	1	Beware of Children (British) . . . . . mel-c AY	—	3	4	Fever in the Blood, A . . . . . mel-c AY
—	2	1	Beyond All Limits . . . . . dr-c A	—	1	7	Fiercest Heart, The . . . . . com A
—	2	2	Big Bankroll, The . . . . . cri-mel A	—	2	5	Five Golden Hours (British) . . . . . com AY
—	3	1	Big Gamble, The . . . . . dr-c A	—	4	6	Five Guns to Tombstone . . . . . wes AY
1	7	6	Big Show, The . . . . . mel-c AY	—	5	5	Follow a Star (British) . . . . . com AY
—	1	2	Big Wave, The (Japanese) . . . . . dr A	—	5	5	Foxhole in Cairo (British) . . . . . war-mel A
—	4	5	Bimbo the Great (German) . . . . . dr-c AY	1	3	1	Francis of Assisi . . . . . dr-c AY
—	6	2	Black Sunday (Italian) . . . . . mel-c AY	—	4	3	Francis of Assisi . . . . . cri-dr A
—	4	4	Blast of Silence . . . . . cri-dr AY	—	4	2	Frantic (French) . . . . . wes AY
—	2	3	Blood and Roses (Italian) . . . . . dr-c A	—	2	5	Frontier Uprising . . . . . com AY
—	3	2	Bowl of Cherries, A . . . . . mus-fan AY	—	6	2	Gambler Wore a Gun, The . . . . . cri-mel AY
—	3	1	Brainwashed . . . . . war-dr AY	—	—	3	Gadget Goes Hawaiian . . . . . com-c A
—	2	1	Breakfast at Tiffany's . . . . . dr-c A	—	1	3	Girl in Lovers' Lane, The . . . . . mel A
—	3	7	Breathless (French) . . . . . cri-dr A	—	3	11	Girl in Room 13, The . . . . . mys-mel-c A
—	3	1	Bridge to the Sun . . . . . war-dr AY	—	6	4	Go Naked in the World . . . . . nov-c A
1	3	3	By Love Possessed . . . . . dr-c A	10	2	—	Gold of the Seven Saints . . . . . wes AY
—	6	5	Canadians, The . . . . . dr-c AY	1	3	6	Gone With the Wind (reissue) . . . . . nov-c AY
—	3	8	Carthage in Flames (Italian) . . . . . mel-c A	—	4	2	Goodbye Again . . . . . dr A
—	3	4	Cheaters, The (French) . . . . . dr A	—	4	2	Green Helmet (British) . . . . . mel AY
1	8	6	Cimarron . . . . . nov-c AY	—	3	—	Greengage Summer (British) . . . . . dr-c A
—	6	6	Circle of Deception (British) . . . . . war-dr A	—	—	3	Gunfight . . . . . wes AY
1	3	1	Come September . . . . . com-c A	2	12	2	Guns of the Navarone, The . . . . . war-dr-c AY
—	2	1	Counterfeit Traitor, The . . . . . war-dr-c AY	—	3	—	(British) . . . . . com AY
—	4	1	Cow and I, The (French) . . . . . war-com A	—	3	1	Half Pint, The . . . . . war-mel AY
				—	3	—	Hand, The (British) . . . . . mel-c AY
				—	4	2	Hatari! . . . . . mel-c A
							Hippodrome (German) . . . . . mel-c A

A	B	C		
1	6	1	Home is the Hero (Irish).....	dr AY
—	4	4	Homicidal.....	cri-mel AY
1	3	2	Honeymoon Machine, The.....	war-com-c AY
3	9	3	Hoodlum Priest, The.....	soc-dr AY
—	3	—	Horse with the Flying Tail, The.....	dr-c AY
—	2	5	House of Fright (British).....	dr-c A
—	2	1	Hustler, The.....	dr A
—	3	—	Islands of the Sea.....	doc-c AY
—	3	—	It Happened in Rome (Italian).....	com-c A
—	2	1	It Takes a Thief (British).....	cri-dr A
—	3	4	Kanal (Polish).....	war-dr A
1	3	—	King of Kings, The.....	hist-dr-c AY
—	2	2	King of the Roaring 20's.....	cri-dr A
—	3	2	Konga.....	sci-c AY
—	—	—	La Dolce Vita (see Sweet Life, The)	
—	3	5	Ladies' Man, The.....	com-c A
—	—	—	Last Sunset, The (see Day of the Gun)	
—	7	3	Last Time I Saw Archie, The.....	war-com AY
—	3	8	L'Avventura (Italian).....	dr A
1	10	2	League of Gentlemen, The (British).....	cri-mel AY
—	1	3	Leda (French).....	dr-c A
—	2	6	Look in Any Window.....	soc-dr A
—	7	5	Love and the Frenchwoman (French).....	dr A
—	3	7	Love in a Goldfish Bowl.....	com-c A
1	3	1	Macario (Mexican).....	fan AY
—	1	2	Maciste in the Land of Cyclops (Italian).....	adv-c A
—	1	10	Mad Dog Coll.....	cri-mel A
—	3	—	Magic Boy (Japanese).....	car-c AY
—	3	—	Mailbag Robbery (British).....	cri-mel AY
—	6	1	Man in the Moon (British).....	sci-com AY
—	3	—	Man Who Wouldn't Talk, The (British).....	cri-dr A
—	1	2	Mania (British).....	cri-mel A
—	2	1	Marines, Let's Go!.....	war-mel-c A
—	1	2	Mark of the Devil (Mexican).....	mel A
—	5	2	Master of the World.....	sci-c AY
—	3	6	Matter of Morals, A (Swedish).....	dr A
2	3	8	Meln Kampf.....	biog-doc A
—	1	2	Mighty Crusaders, The (Italian).....	mel-c AY
—	1	4	Minotaur, The (Italian).....	mel-c A
—	7	7	Misfits, The.....	dr-c A
2	8	1	Misty.....	dr-c AY
—	4	4	Modigliani of Montparnasse (French).....	biog A
—	3	—	More Deadly than the Male (British).....	cri-mel A
—	4	5	Morgan, the Pirate (Italian).....	adv-c A
—	2	8	Most Dangerous Man Alive.....	sci-mel A
1	3	3	Naked Edge, The.....	mys-mel AY
—	—	3	Night of Love (French-Italian).....	war-dr A
1	3	—	Nikki, Wild Dog of the North.....	mel-c AY
—	3	—	No Love for Johnny (British).....	dr A
—	5	2	Ole Rex.....	dr-c AY
—	9	5	On the Double.....	war-com-c AY
4	8	5	One-Eyed Jacks.....	wes-c A
—	2	5	Operation Bottleneck.....	war-dr A
—	6	6	Operation Eichmann.....	propaganda-dr A
2	10	1	Parent Trap, The.....	com-c AY
—	9	8	Parrish.....	dr-c A
—	4	6	Passport to China (British).....	mys-dr-c AY
—	1	7	Pharaoh's Woman, The (Italian).....	mel-c A
—	2	1	Picnic.....	dr-c A
—	8	4	Please Turn Over (British).....	dr A
2	9	5	Pleasure of His Company, The.....	com-c AY
—	6	3	Police Dog Story, The.....	cri-dr AY
—	6	7	Portrait of a Mobster.....	cri-mel A
—	5	3	Posse from Hell.....	wes-c AY
—	5	—	Primitive Paradise.....	doc-c AY

A	B	C		
—	3	—	Queen's Guards, The (British).....	dr-c AY
2	5	—	Question 7.....	propaganda-dr AY
—	6	4	Rachel Cade (British).....	dr-c A
7	6	2	Raisin in the Sun, A.....	dr AY
—	3	2	Rebellion in Cuba.....	doc-dr AY
—	6	7	Return to Peyton Place.....	dr-c A
—	3	2	Revolt of the Slaves, The (Italian).....	dr-c A
—	1	12	Right Approach, The.....	com A
—	5	5	Ring of Fire.....	mel-c A
—	5	2	Rocco and His Brothers (Italian).....	dr A
—	3	2	Rocket Attack, U.S.A.....	war-mel AY
—	3	—	Rooftops of New York.....	doc-c A
—	12	3	Romanoff and Juliet.....	dr-c AY
—	3	—	Sand Castle, The.....	fan AY
1	9	4	Saturday Night and Sunday Morning (British).....	dr A
—	3	1	Scampolo (German).....	mel-c A
—	2	1	Season of Passion (British).....	dr A
1	7	2	Secret Partner, The (British).....	mys-mel AY
—	7	6	Secret Ways, The.....	mys-mel A
—	2	1	Secrets of Women (Swedish).....	dr A
—	—	3	See Naples and Die (Italian).....	dr A
1	5	—	Serengeti Shall Not Die.....	doc-c AY
—	5	4	Shadow of the Cat, The (British).....	mys-mel AY
—	8	4	Shadows.....	soc-dr A
—	1	2	She Walks by Night (German).....	mel A
—	3	1	Silent Call, The.....	dr AY
—	—	—	Sins of Rachel Cade (See Rachel Cade)	
—	1	2	Sixth Man, The.....	war-dr AY
—	—	6	Snake Woman, The (British).....	mel AY
—	8	4	Snow White and the Three Stooges.....	com-c AY
—	3	1	Spessart Inn, The (German).....	adv-c AY
—	3	1	Splendor in the Grass.....	dr-c A
—	2	6	Steel Claw (Filipino).....	dr-c AY
—	—	3	Stop, Look, and Laugh.....	com AY
—	7	2	Stop Me Before I Kill (British).....	soc-dr A
—	1	2	Summer and Smoke.....	dr-c A
1	6	5	Sweet Life, The (Italian).....	dr A
—	3	3	Take a Giant Step.....	dr A
2	4	1	Tammy, Tell Me True.....	com-c AY
—	4	3	Teacher and the Miracle, The (Italian).....	dr AY
—	3	5	Terror of the Tongs, The (British).....	mys-mel-c AY
—	3	2	They Were Ten (Israeli).....	dr A
—	2	3	Thief of Bagdad (Italian).....	adv-c A
—	—	3	Three Blondes in His Life.....	mys-mel A
—	3	2	Time Bomb (Franco-Italian).....	mys-mel AY
—	3	1	Tormented, The.....	cri-dr AY
—	7	2	Trapp Family, The (German).....	mus-biog-c AY
—	6	1	Trouble in the Sky (British).....	dr AY
—	2	3	20,000 Eyes.....	cri-mel A
1	3	2	Truth, The (French).....	dr A
—	3	—	288 Stourarna Street (Greek).....	com A
1	5	9	Two Loves (British).....	dr-c A
—	3	1	Two Rode Together.....	mel-c AY
—	11	1	Two Women (Italian).....	war-dr A
—	4	6	Underworld, U.S.A.....	cri-mel A
—	6	3	Violent Summer (Italian).....	war-dr A
—	3	—	Voyage to the Bottom of the Sea.....	adv-c AY
—	1	9	Warrior Empress, The (Italian).....	adv-c A
—	4	—	Watch Your Stern (British).....	war-com AY
—	—	4	When the Clock Strikes.....	cri-mel AY
1	2	4	White Nights (Italian).....	dr AY
—	4	6	Wild in the Country.....	mus-com-c AY
—	—	3	Wild Love (Italian).....	dr A
—	4	1	Wings of Chance (Canadian).....	dr-c AY
1	7	8	Young Savages, The.....	soc-mel AY



## **The Consumers' Observation Post**

(Continued from page 4)

CHRISTMAS GIFTS AT THIS SEASON of the year seem very remote. It is possible, however, to make vacation pay dividends, particularly if it is taken in good shopping areas such as the big cities in the United States, or where unusual items are found overseas. Bargains and an ample selection to choose from are usually available at this time, and you can eliminate the chore of bucking crowds and jam-packed transportation to buy presents at a later date.

\* \* \*

HOW MUCH DOES IT COST to buy a product on the installment plan? The answer usually is "Plenty"! It seems that compound interest is not always taught in arithmetic classes any more, and too few people know how to look beyond the weekly or monthly payments. If the monthly amount is within their budget, then they think they can afford it. Whether they are paying 6 percent, 12 percent, or 36 percent for credit is apparently beyond the powers of calculation of a good many consumers. In a recent government investigation of prefabricated shell houses selling from \$7000 to \$10,000, the credit charges amortized over a five-year period ranged from \$2000 to \$3000 or nearly three times the customary mortgage financing rates. One current book on installment buying points out that borrowers should realize that car finance charges run from 11 percent to 17 percent in true annual interest and that revolving credit at stores costs 18 percent. Another writer, with what might be characterized an old-fashioned viewpoint, suggests that putting money into a savings account and waiting to make the purchase of a television set, automatic washer, automobile, or furniture until the full purchase price is accumulated is a more effective method of buying.

\* \* \*

**CORRECTION PLEASE:** The warning about keeping household detergents out of children's reach in the Observation Post (Consumer Bulletin, August 1961, p. 38) needs correction and amplification. It is the dry detergents sold for use in automatic dishwashing machines that the National Safety Council puts into a class with lye and bleach. On the subject of synthetic laundry detergents, both dry and liquid, the U.S. Public Health Service in a summary of data from Poison Control Centers reports that in general such products have "a low order of systemic toxicity," but several essential ingredients may produce corrosive burns to the mucous membranes and cause irritation to the gastrointestinal tract.

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THOSE NEW LAMINATED JACKETS AND COATS are becoming quite popular. They are shell fabrics to which a sponge-like polyurethane foam is permanently bonded (laminated) to the underside. The jackets are warm and light in weight, but there are many complaints about their appearance after they have been washed or dry cleaned. Good quality products of this type will not separate, bunch, or mat when they are dry cleaned. If the outer fabric is washable, then the laminate can be washed also. Little ironing is needed, but if a touch-up is required, a low setting must be used for the foam will melt if touched by a hot iron. Men's Wear magazine reports that many merchants are having difficulty with a considerable number of laminated jackets for men that are being returned because of unsatisfactory performance. Keep this in mind, and make your purchase in a store that will take back the coat or jacket if it does not perform satisfactorily.

\* \* \*

EYE AND EYEBROW MAKE-UP has become quite fashionable for girls and women of all ages. In view of the possible dangers to sight, synthetic organic colors are forbidden in eye make-up by the 1938 Food, Drug, and Cosmetic Act and the 1960 Color Additives Amendment because such colors have not been shown as safe for use in the area of the eyes. This past spring the Food and Drug Administration seized several lots of certain shades of eye make-up which contained non-permitted coal-tar colors. The brands which contained non-permitted colors included Avon Eye Liner Violet, as well as Revlon, Maybelline, Max Factor, Cosmetically Yours, Helena Rubenstein, House of Westmore, Yardley of London, and Hazel Bishop eye pencils. The companies involved cooperated promptly with the federal authorities by removing the condemned products from the market. Most of them had been made by one manufacturer, regardless of the brand name.

\* \* \*

#### NOT NEW BUT WORTH MENTIONING:

Faucet-Queen (The Faucet-Queens, Inc., 119 W. Hubbard St., Chicago 10) 49c at chain variety stores. This faucet spray consists of a stainless-steel strainer built into a flexible rubber casing, and a fitting that is easily attached to a sink faucet. It was found easy to install on smooth faucets with a diameter of 3/4 inch or less. With the flexible casing and normal water pressure, it is easy to direct a spray of water to any desired area in the sink. The device was found to be durable and long lasting. Faucet-Queen is also available in another model designed to fit inside and outside threaded kitchen faucets, and in still a third model for laundry faucets or the garden hose. These models sell for 98c each, postpaid.

## Consumer Bulletin

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## Instant flat tire repair?

*Yes and no—is the correct answer; the device may be worth its cost in some cases, when a quick temporary repair might be vitally important*



RECENTLY there has been a marked flurry of advertising of products guaranteed to "Give You an Emergency Puncture Seal" and inflate a punctured tire without jack or tools and without removing the tire from the car. Certainly such a product (there are several similar or related products from different sources), that would perform its function successfully as claimed in the advertising, would be a great boon to the motorist, especially a woman whose car gets a flat tire several miles from a service station and who is averse to wrestling with a bulky, often poorly designed jack, to remove the flat tire and install the spare.

Although most of the new emergency tire repair devices are relatively expensive (about \$5), they can be worth their price, not only because of the time and labor saved, but because usually the person changing the tire on the road will very likely soil his clothing, and that may involve a substantial dry-cleaning bill or, with a woman, even the purchase of new garments.

The inquiries CR has received asking for information on these devices seems to indicate that, if the claims made could be substantiated, many motorists would be willing to pay the \$5 asked. One of the puncture repair devices, called *Repair'n Air*, was purchased by mail order at \$4.95 plus a 50-cent shipping charge. The advertisement claimed it was guaranteed to (1) "Give you an emergency puncture seal"; (2) "Inflate your punctured flat tire"; (3) "Do all this without tools or jacking car up." The ad also stated, "If *Repair'n Air* for any reason fails, we will: Refund the Purchase Price."

*Repair'n Air* consisted of an aluminum gas-cylinder about  $2\frac{3}{4}$  inches in diameter by  $7\frac{1}{4}$  inches long, with a 5-inch length of flexible tube for attaching the cylinder to the tire valve. The cylinder contained a sealant and a "Scientifically Compounded" pressurized gas.

In CR's tests, a 7.10 x 15 tubeless tire was punctured by being driven over an ordinary galvanized roofing nail ( $\frac{1}{8}$ -inch diameter) which had been driven through a thin board to keep it upright and insure that it would fully penetrate the tread portion of the tire. When the nail was removed, the tire went completely flat in a short time, but the tire bead did not separate from the rim.

Carefully following instructions, the driver moved the car so that the tire valve was in the "4 o'clock position"; he then shook the cylinder vigorously and attached it to the tire valve with the screw fitting on the flexible tube provided. The shaking was continued during the injection of the sealant into the tire until the pressure cylinder was empty. The flexible tube was then removed from the tire and the pressure was measured. While the tire was not fully inflated, sufficient air had been introduced to make it safe to drive the car a reasonable distance to a service station. The pressure reached in the 7.10 x 15 tire used was 21 pounds per square inch; the normal pressure for the tire used would be about 26 pounds.

There was a slight leak, as evidenced by a little white foam at the nail hole, but this leak stopped very soon, as some of the sealant

*(Concluded on page 21)*

# **COMING IN FUTURE BULLETINS**

## **Clothes dryers**

### **ELECTRIC**

Easy	Hotpoint	Norge
Frigidaire	Kelvinator	Philco
General Electric	Kenmore	RCA Whirlpool
Hamilton	Maytag	Westinghouse

### **GAS**

Easy	Kelvinator	Norge
Frigidaire	Kenmore	Philco
Hamilton	Maytag	RCA Whirlpool

## **Garbage disposers**

In-Sink-Erator

RCA Whirlpool

Waste King Universal

## **Breakfast foods**

**8 mm. electric eye zoom cameras**

**Dry-battery-operated electric clock**

**Table-model AM receivers**

**Clock radios**

**Transistor portable radios**

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Published by Consumers' Research, Inc., Washington, New Jersey,  
a non-profit organization serving consumers, with no support from business or industry.



